ECKERT SEAMANS

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January 28, 2005

via Certified Mail
Return Receipt Requested

Ms. Diane M. Sharrow (DE-9J)
Wastes, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
U. S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Re: December 14, 2004 Information Request to Severstal North America

Dear Ms. Sharrow:

On behalf of SeverStal North America ("SeverStal") please find enclosed SeverStal's response to the Information Request dated December 14, 2005, along with documents SNA12/04IR 00001 through 00333. Pursuant to our January 7, 2005 telephone conversation, and our letter of the same date, the deadline for SeverStal's response was extended until January 31, 2005.

Thank you for your consideration in this regard.

Sincerely yours,

David A. Rockman

Enclosure

cc: D.S. Windeler

SEVERSTAL NORTH AMERICA

RESPONSE TO U.S. EPA
DECEMBER 14, 2004
REQUEST FOR INFORMATION
PURSUANT TO RCRA SECTION 3007

GENERAL RESPONSES AND OBJECTIONS

The general objections set forth below are intended to be continuing throughout the specific responses, even when not specifically repeated in a given response.

1. SeverStal North America ("SeverStal") objects to these Requests as beyond the scope of EPA's authority under Section 3007 of RCRA.

2. SeverStal objects to these Requests to the extent they call for the production of attorney-client privileged or work product protected information, or information subject to other privileges or protections of federal or state law.

3. SeverStal objects to these Requests to the extent they are overbroad and impose an undue burden on SeverStal.

4. SeverStal objects to these Requests to the extent they are not relevant to or reasonably related to EPA's enforcement of Section 7003 of RCRA or a determination of SeverStal's status under Section 3014 of RCRA.

5. SeverStal objects to these Requests to the extent they call for the production of publicly available documents or information that is already in the possession of EPA.

6. SeverStal objects to these Requests to the extent they use terms that are not defined, and therefore not susceptible to a clear and definite answer.

7. SeverStal objects to these Requests to the extent they are ambiguous or confusing and therefore not susceptible to a clear and definite answer.

8. SeverStal objects to these Requests to the extent that they require SeverStal to form, reach or set forth a legal conclusion.

9. SeverStal objects to the Certification requirement contained in the Request as EPA does not have the authority under Section 3007 of RCRA to require such a certification.

Without waiving the foregoing objections, and reserving all rights to assert these and all other applicable objections in the future, SeverStal provides the following specific responses to the Request for Information:

Requests

1. Identify all persons consulted in preparing the answers to this Request for Information. Provide the full name and title for each person identified, as well as the business address and telephone number of each such person.

   SeverStal objects to this request to the extent that it calls for the production of attorney-client privileged or work product protected information. Without waiving said objection, SeverStal responds:

   Donald S. Windeler, Manager of Environmental Engineering
   Lan Trinh, Environmental Engineer
   Tim Chen, Environmental Engineer
   David Joseph, Supervisor, Accounts Payable Department
   Tom Barstow, Area Manager
   Mike Collins, QSR/Specialist

   All of the aforementioned persons are employees of SeverStal, 3001 Miller Road, Dearborn, Michigan 48121. Telephone: (313) 317-8900.

   Edward Keveney, Sales & Marketing and Donald Tisen, Director of Health, Safety, Environmental and Risk Management, both of VacAll Industrial Services, 26705 Northline Road, Taylor, Michigan 48180, Phone #: 734-941-4357

2. Provide true, accurate and complete copies of all documents pertaining to any oil, oily water or oily materials that SeverStal has removed from any of the impoundments, pits, ponds or lagoons located at the Schaeffer Road Wastewater Treatment Plant (SRWWTP), between the time of SeverStal's purchase of the Rouge Steel facility and the present date, inclusive. Documents responsive to this request should include, but not be limited to, all contracts or other written agreements; all purchase orders for materials handled; all documents that describe or identify any of the contents or constituents of each material handled; all documents that identify the source of each material handled; and all documents that identify the amount of each material handled.

   SeverStal objects to this Request as vague and ambiguous, as the terms "impoundments" and "pits" are not defined. SeverStal further objects to this Request to the extent it implies or assumes that any impoundments, ponds or lagoons at SRWTTP have a used oil storage function beyond their

intended function as permitted wastewater treatment units. Without waiving said objection, SeverStal responds that responsive documents are being provided. See documents SNA12/04IR 00001 to 00286.

3. Identify all contractors and/or consultants who provided services for SeverStal with respect to the SRWWTP for the period of time between SeverStal's purchase of the Rouge Steel facility and the present date, inclusive. Provide the names of all contact persons, as well as the business address and telephone number of each such person.

SeverStal objects to this Request as overbroad and unduly burdensome, and as a calling for information not reasonably related to RCRA and RCRA compliance. SeverStal will respond to this question by limiting its response to any contractors and/or consultants involved in the handling, placement or removal of wastewater or oil-containing substances at SRWWTP, or any of the services asked about in Request No. 4. By way of example, SeverStal will not be responding to this question with respect to contractors and consultants such as municipal waste haulers, service providers for the chemicals, bacteria and the bio-reactor used to treat wastewater at SRWWTP, wildlife consultants (MEC, with whom EPA is already familiar) or with respect to Conestoga Rovers & Associates, which is performing investigation activities pursuant to a Consent Order with the Michigan Department of Environmental Protection.

By way of response, SeverStal identifies:

VacAll 26705 Northline Road, Taylor, Michigan 48180, Phone #: 734-941-4357. Contact persons: Ed Keveney, Sales Manager and/or Donald Tisen, Director of Safety

Tait Landscaping, PO Box 104, Oxford, Michigan 48371. Contact person: Brian Tait, 248-393-8517.

4. Describe in detail each service provided to SeverStal by contractors or consultants at the SRWWTP for the period between the time of Severstal's purchase of the Rouge Steel facility and the present date, inclusive. Your response should include, but not be limited to, detailed descriptions of all vacuum services, trucking services, liquid hauling services, water blasting services, pipeline inspection services (including photographing or videotaping), and hydro-excavation services.

The services pertaining to oil, oily water or oily materials during the referenced period are documented in the VacAll invoices, job tickets, and manifests provided in Item 2 above. These comprise the following services:

<u>Skimming or vacuuming or removing oil from the ponds.</u> A vacuum hose is connected to a vacuum truck called a "Supersucker" or "Vactor." The

contractor employees maneuver this hose so that it approaches the surface of the pond closely enough for the suction to lift oil from the surface of the water. Some water is removed with the oil. The oil and water are contained in the vacuum tank on the truck throughout the process. When all of the recoverable oil is removed, or the truck is full, the vacuum hose is replaced on the truck and the truck is driven to the clarifiers and the oily water is drained to one of the two concrete vaults under the clarifier building.

Removing oil from "sump pits" (Skimmer tanks and Clarifier Vaults) and hauling off-site. A suction hose is connected to a pump on a Press-Vac truck and oil is pumped from the skimmer tanks around the ponds, or from the concrete vaults beneath the clarifiers, into the truck tank. When the truck is full, the tank inlet valve is closed, and the hoses replaced on the truck. The truck is then driven to a disposal or recycling facility, where the oily material is off-loaded. The loads were delivered to and off-loaded at EQ Detroit.

Removing oil from "grit pits." (Grit Chambers) A vacuum hose is connected to a vacuum truck called a "Supersucker" or "Vactor." The contractor employees ("Operators") maneuver this hose so that it approaches the surface of the water in the grit chambers closely enough for the suction to lift oil from the surface of the water. Some water is removed with the oil. The oil and water are contained in the vacuum tank on the truck throughout the process. When all of the recoverable oil is removed, or the truck is full, the vacuum hose is replaced on the truck and the truck is driven to the clarifiers and the oily water is drained to one of the two concrete vaults under the clarifier building.

Washing down of gates, screens and "grit pits." (Grit Chambers) A jet of pressurized water is used to wash solids and oil film from the gates, bar screens and walls of the Grit Chambers. The solids settle to the bottom of the Grit Chambers, and the oil film will flow through the Chambers to the Clarifiers.

Vacuuming and cleaning Clarifiers. The inlet gate to the clarifier being cleaned is closed. The sludge is pumped to the sludge pond and the water is drained to the Primary lagoon. After the Clarifier has been thus emptied, a jet of pressurized water is used to wash solids from the walls and bottom of the Clarifier. The solids and water are vacuumed up by a "Supersucker" or "Vactor" and transferred to the sludge pond.

Cleaning Clarifier "pits." (Concrete Vaults) The wastewater treatment operator decants free water from the concrete vaults to the Primary Lagoon. Oil and oily water is removed from the clarifier vaults by a Press-Vac and hauled off-site as previously described. A jet of pressurized water is used to slurry the solids which have settled to the bottom of the concrete vaults and

the slurry is vacuumed out of the concrete vaults by a "Supersucker" or "Vactor." The solids are then transferred to the sludge pond.

Blasting a "line" (pipe). When a pipe appears plugged, the contractor employee feeds a hose emitting a high-pressure stream of water into the pipe, so that the plugging material is broken up and vacuumed into the "Vactor" or "Supersucker" truck. VacAll also vacuums up debris so it is not washed down the line. The truck is then driven to the clarifiers and the material is drained to one of the two concrete vaults under the clarifier building.

Services performed by Tait Landscaping consisted of removal of existing fabric and installation of new fabric around the primary lagoon, and installation of goose fencing around the primary lagoon.

5. Provide any or all U.S. EPA identification numbers or names that contractors may have used while providing services to SeverStal, and identify any subsidiaries or operating divisions that may have performed services for SeverStal.

VacAll's EPA identification number is MID985633015.

SeverStal is not aware of any U.S EPA identification number used by Tait Landscaping.

6. Provide true, accurate and complete copies of all documents, data, photographs and videotapes in your possession that relate to each service performed for SeverStal, as described in response to Requests No. 4 and 5, above.

See documents provided in response to Request No. 2 (SNA12/04IR 00001 to 00286), as well as documents SNA12/04IR 00325 to 00333.

7. Identify each occasion that SeverStal has excavated or otherwise removed any liquid or solid materials from any pit, pond or lagoon at the SRWWTP; identify the employees involved in each such excavation or removal activity; provide the date(s) of each such excavation or removal activity; identify whether such excavation or removal work was performed for or on behalf of SeverStal; describe how the excavated or removed material was handled; describe the ultimate fate of each removed or excavated material; and provide true, accurate and complete copies of all documents relating to each such excavation or removal activity (including but not limited to all documents identifying the sources and constituents of each material excavated or removed, and all manifests and analytical reports relating to such material).

SeverStal objects to this Request as vague and ambiguous, as the terms "impoundments" and "pits" are not defined. SeverStal further objects to this Request as overbroad and unduly burdensome to the extent it could be read to encompass the constant removal of wastewater from the SRWWTP

via SeverStal's NPDES permitted discharge from the SRWWTP; no documents regarding NPDES permitted discharges are being produced.

SeverStal also objects to this Request as vague and ambiguous, as it is unclear whether EPA is seeking information about materials moved between the various units at SRWWTP, in the normal course of permitted operations, or whether EPA is only asking about materials moved off-site. SeverStal responds that in the normal course of operation of the SRWWTP, wastewater from the steel manufacturing operations is piped to the clarifier via a grit chamber. From the clarifier, separated water is piped to the primary and secondary lagoons, while the remaining wastewater is piped to the sludge ponds. Oily material is removed from the wastewater via skimming from both the sludge ponds and the lagoons. Oily material from the clarifiers is transferred by pipe to the concrete vaults at the clarifier office. Oily material removed from the sludge ponds and lagoons by the permanently installed skimmers is retained in the tanks associated with each skimmer. Oily material removed from the lagoons via vacuum truck is transferred to the clarifier vaults. Oily material in the skimmer tanks and clarifier vaults is removed by vacuum trucks and disposed off-site at an appropriate facility (see documents produced in response to Request No. 2). During cleaning of the clarifier, wastewater and associated material is moved to the sludge ponds for separation; during cleaning of the grit chamber, oil is skimmed and the remaining material is directed to the diked lagoon. In the normal course of operations, the sludge ponds are dredged and the dredgings disposed off-site at a landfill. SeverStal has not yet conducted any dredging of the sludge ponds.

Except as described in SeverStal's response to this Information Request, no excavation or removal of material from any pond or lagoon at SRWWTP has been conducted by any SeverStal employee. To the extent this Request is also seeking information about any removal of material from any pond or lagoon by any contractors or consultants, please see the responses to Requests No. 2, 3, 4 and 9, and documents produced in response thereto.

8. Describe in detail each occasion that SeverStal deposited any oil, oily water or oily material into any impoundment, pit, pond or lagoon at the SRWWTP. Identify the source(s) of each such material; identify the location(s) where each such material was found; and describe how each material was handled. Provide all documents that relate to the source(s), origin(s), location(s), amount, contents and constituents of each such material.

SNA objects to this Request as vague and ambiguous, as the terms "impoundments," "pits" and "deposited" are all undefined. As explained by the response of Rouge Steel Company to EPA's February 14, 2002 and March 24, 2003 Information Requests, wastewater is piped to the SRWWTP from certain of the mills used in the production of steel at the Rouge

Manufacturing Complex. As described in those earlier Information Request responses, process wastewater undergoes physical separation by being directed through separating baffles and a skimmer before being sent to the SRWWTP. The wastewater is moved between various units at the SRWWTP, as described in response to Request No. 7. A copy of the relevant page from the NPDES permit application for the SRWWTP is being produced, at SNA12/04IR 00290, regarding the source of wastewater from the steel production operations, and copies of analytical data on the contents and constituents of material at the SRWWTP is being produced, at SNA12/04IR 00291 to 00324.

To the extent this Request seeks information regarding the delivery of oil containing material to SRWWTP, via a method other than piping, SeverStal responds that oil and water mixture skimmed by truck from the on-site ponds and lagoons is delivered to the vault in the clarifier building for storage prior to off-site shipment, and that wastewater containing oil as a constituent is delivered to the clarifiers for wastewater treatment, as described in response to Request No. 7. No other oil containing material is delivered to SRWWTP.

9. Describe in detail how SeverStal removed and handled oil, oily-water or oily materials at the SRWWTP. Describe in detail each aspect of the labor involved, and the cost of each type of labor. Provide true, accurate and complete copies of all documents that contain any information responsive to this Request.

SeverStal objects to this Request as calling for information not reasonably related to EPA's assessment of RCRA compliance status. Without waiving said objection, SeverStal refers to the responses to Requests No. 2, 3, 4 and 7 regarding the removal and handling of oil, oily-water or oily materials at the SRWWTP, and to the documents being produced in response to those Requests. With regard to the question of labor costs, the costs incurred in connection with work done by VacAll are reflected on the documents provided. SeverStal personnel employed at the SRWWTP have duties in addition to any duties related to handling of oil containing materials, and SeverStal does not have any breakout of labor costs associated solely with handling of oil containing material at SRWWTP.

SEVERSTAL NORTH AMERICA

RESPONSE TO U.S. EPA
DECEMBER 14, 2004
REQUEST FOR INFORMATION
PURSUANT TO RCRA SECTION 3007

CERTIFICATION

I certify under the penalty of law that I have examined and am familiar with the information submitted in responding to this information request for production of documents. Based on my review of all relevant documents and inquiring of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

D.S. Windeler
Manager, Environmental Engineering

Dated: January 27, 2005

Huron Valley Laboratories, Inc.

Accredited through the National Environmental Laboratory Accreditation Program (NELAP).
Accreditation Number: 100314

Analytical Report
for
Environmental Chemical Enterprises, Inc.
200 Riverfront Drive, Suite 2404
Detroit, MI 48226-4560

October 26, 2004

ECE, Inc. Project:	Severstal NA Used Oils
HVLI Project:	L24519
Date Received:	September 30, 2004

ND = Parameter not detected at or above PQL.

PQL = Practical quantitation limit - The practical limit at which quantitation can be achieved. This limit is dependent on both matrix and dilution factors and may vary from one report to another. HVLI establishes the PQL at 5 times the minimum detection limit as defined in Appendix B of 40 CFR 136.

Approved by:

Robert S. Lynch
Laboratory Manager

Mark W. Bailey
QC Review

Enclosure
ri

cc: Donzell Green

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4LUS, MI 48174
(734) 946-4990
FAX(734) 946-4867

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200 S. COURT AVE. STE. 1
GAYLORD, MI 49735
(989) 732-5614
FAX (989) 732-7581

Analytical Results Report

Sample description: Schaerfer Rd. WWTP-Secondary Belt/Mop Tank
Sample date: 09/30/04
HVLI sample: L24519-7

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
PCB, total	ND	mg/kg		4.6	10/07/04	IMR
F Series Volatile Compounds:						
Acetone	ND	ug/kg		100000	10/23/04	IMR
Benzene	ND	ug/kg		88000	10/23/04	IMR
n-Butanol	ND	ug/kg	5	180000	10/23/04	IMR
2-Butanone	ND	ug/kg		140000	10/23/04	IMR
Carbon disulfide	ND	ug/kg		88000	10/23/04	IMR
Carbon tetrachloride	ND	ug/kg		88000	10/23/04	IMR
Chlorobenzene	ND	ug/kg		88000	10/23/04	IMR
o-Cresol	ND	ug/kg	5	180000	10/23/04	IMR
m+p Cresol	ND	ug/kg	5	180000	10/23/04	IMR
Cyclohexanone	ND	ug/kg	5	180000	10/23/04	IMR
1,2-Dichlorobenzene	ND	ug/kg		88000	10/23/04	IMR
2-Ethoxyethanol	ND	ug/kg	5	180000	10/23/04	IMR
Ethyl acetate	ND	ug/kg	5	88000	10/23/04	IMR
Ethylbenzene	ND	ug/kg		88000	10/23/04	IMR
Diethyl ether	ND	ug/kg	5	88000	10/23/04	IMR
Isobutanol	ND	ug/kg	5	180000	10/23/04	IMR
Methylene chloride	ND	ug/kg		88000	10/23/04	IMR
Methyl-iso-butyl ketone	ND	ug/kg		88000	10/23/04	IMR
Nitrobenzene	ND	ug/kg		180000	10/23/04	IMR
2-Nitropropane	ND	ug/kg		180000	10/23/04	IMR
Pyridine	ND	ug/kg	5	180000	10/23/04	IMR
Tetrachloroethene	ND	ug/kg		88000	10/23/04	IMR
Toluene	ND	ug/kg		88000	10/23/04	IMR
1,1,1-Trichloroethane	ND	ug/kg		88000	10/23/04	IMR
1,1,2-Trichloroethane	ND	ug/kg		88000	10/23/04	IMR
Trichloroethene	ND	ug/kg		88000	10/23/04	IMR
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	88000	10/23/04	IMR
Trichlorofluoromethane	ND	ug/kg		88000	10/23/04	IMR
Xylenes	ND	ug/kg		110000	10/23/04	IMR
IGNITABILITY:						
Flash Point-closed cup	>200	deg F		0.00	10/15/04	RSL
REACTIVITY:						
Cyanide, reactive	50.	mg/kg	3	0.22	10/12/04	RWL
REACTIVITY:						
Sulfides, reactive	0.91	mg/kg	3,4	0.43	10/12/04	RWL
TCLP, EXTRACT LEVEL:						
Mercury	ND	mg/l		0.0010	10/08/04	MW

Huron Valley Laboratories, Inc

Analytical Results Report

Sample description: Schaerfer Rd. WWTP-Secondary Belt/Mop Tank
Sample date: 09/30/04
HVLI sample: L24519-7

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
TCLP, EXTRACT LEVEL:						
Arsenic	ND	mg/l		0.020	10/12/04	LJJ
Barium	0.023	mg/l		0.0030	10/12/04	LJJ
Cadmium	ND	mg/l		0.0030	10/12/04	LJJ
Chromium	0.0088	mg/l		0.0020	10/12/04	LJJ
Lead	ND	mg/l		0.0070	10/12/04	LJJ
Selenium	ND	mg/l		0.040	10/12/04	LJJ
Silver	ND	mg/l		0.010	10/12/04	LJJ
TCLP, EXTRACT LEVEL						
Vinyl chloride	ND	mg/l		0.010	10/07/04	IMR
1,1-Dichloroethene	ND	mg/l		0.010	10/07/04	IMR
Methyl ethyl ketone	ND	mg/l		0.055	10/07/04	IMR
Chloroform	ND	mg/l		0.010	10/07/04	IMR
Carbon tetrachloride	ND	mg/l		0.010	10/07/04	IMR
Benzene	ND	mg/l		0.010	10/07/04	IMR
1,2-Dichloroethane	ND	mg/l		0.010	10/07/04	IMR
Trichloroethene	ND	mg/l		0.010	10/07/04	IMR
Tetrachloroethene	ND	mg/l		0.010	10/07/04	IMR
Chlorobenzene	ND	mg/l		0.010	10/07/04	IMR
1,4-Dichlorobenzene	ND	mg/l		0.010	10/07/04	IMR
TCLP, EXTRACT LEVEL:						
Hexachloroethane	ND	mg/l		0.025	10/11/04	MWB/IMR
Cresols	0.027	mg/l		0.020	10/11/04	MWB/IMR
Nitrobenzene	ND	mg/l		0.010	10/11/04	MWB/IMR
Hexachlorobutadiene	ND	mg/l		0.010	10/11/04	MWB/IMR
2,4,6-Trichlorophenol	ND	mg/l		0.020	10/11/04	MWB/IMR
2,4,5-Trichlorophenol	ND	mg/l		0.020	10/11/04	MWB/IMR
2,4-Dinitrotoluene	ND	mg/l		0.010	10/11/04	MWB/IMR
Pentachlorophenol	ND	mg/l		0.035	10/11/04	MWB/IMR
Hexachlorobenzene	ND	mg/l		0.010	10/11/04	MWB/IMR
Pyridine	ND	mg/l		0.050	10/11/04	MWB/IMR

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Drill Tank
Sample date: 09/30/04
HVLI sample: L24519-8

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
PCB, total	ND	mg/kg		3.9	10/11/04	IMR
F Series Volatile Compounds:						
Acetone	ND	ug/kg		96000	10/23/04	IMR
Benzene	ND	ug/kg		82000	10/23/04	IMR
n-Butanol	ND	ug/kg	5	160000	10/23/04	IMR
2-Butanone	ND	ug/kg		130000	10/23/04	IMR
Carbon disulfide	ND	ug/kg		82000	10/23/04	IMR
Carbon tetrachloride	ND	ug/kg		82000	10/23/04	IMR
Chlorobenzene	ND	ug/kg		82000	10/23/04	IMR
o-Cresol	ND	ug/kg	5	160000	10/23/04	IMR
m+p Cresol	ND	ug/kg	5	160000	10/23/04	IMR
Cyclohexanone	ND	ug/kg	5	160000	10/23/04	IMR
1,2-Dichlorobenzene	ND	ug/kg		82000	10/23/04	IMR
2-Ethoxyethanol	ND	ug/kg	5	160000	10/23/04	IMR
Ethyl acetate	ND	ug/kg	5	82000	10/23/04	IMR
Ethylbenzene	ND	ug/kg		82000	10/23/04	IMR
Diethyl ether	ND	ug/kg	5	82000	10/23/04	IMR
Isobutanol	ND	ug/kg	5	160000	10/23/04	IMR
Methylene chloride	ND	ug/kg		82000	10/23/04	IMR
Methyl-iso-butyl ketone	ND	ug/kg		82000	10/23/04	IMR
Nitrobenzene	ND	ug/kg		160000	10/23/04	IMR
2-Nitropropane	ND	ug/kg		160000	10/23/04	IMR
Pyridine	ND	ug/kg	5	160000	10/23/04	IMR
Tetrachloroethene	ND	ug/kg		82000	10/23/04	IMR
Toluene	ND	ug/kg		82000	10/23/04	IMR
1,1,1-Trichloroethane	ND	ug/kg		82000	10/23/04	IMR
1,1,2-Trichloroethane	ND	ug/kg		82000	10/23/04	IMR
Trichloroethene	ND	ug/kg		82000	10/23/04	IMR
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	82000	10/23/04	IMR
Trichlorofluoromethane	ND	ug/kg		82000	10/23/04	IMR
Xylenes	ND	ug/kg		100000	10/23/04	IMR
IGNITABILITY:						
Flash Point-closed cup	>200	deg F		0.00	10/18/04	RSL
REACTIVITY:						
Cyanide, reactive	ND	mg/kg		0.19	10/12/04	RWL
REACTIVITY:						
Sulfides, reactive	ND	mg/kg		0.38	10/12/04	RWL
TCLP, EXTRACT LEVEL:						
Mercury	ND	mg/l		0.0010	10/08/04	MW

Huron Valley Laboratories, Inc

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Drill Tank
Sample date: 09/30/04
HVLI sample: L24519-8

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
TCLP, EXTRACT LEVEL:						
Arsenic	ND	mg/l		0.020	10/12/04	LJJ
Barium	0.027	mg/l		0.0030	10/12/04	LJJ
Cadmium	ND	mg/l		0.0030	10/12/04	LJJ
Chromium	0.0093	mg/l		0.0020	10/12/04	LJJ
Lead	ND	mg/l		0.0070	10/12/04	LJJ
Selenium	ND	mg/l		0.040	10/12/04	LJJ
Silver	ND	mg/l		0.010	10/12/04	LJJ
TCLP, EXTRACT LEVEL						
Vinyl chloride	ND	mg/l		0.010	10/07/04	IMR
1,1-Dichloroethene	ND	mg/l		0.010	10/07/04	IMR
Methyl ethyl ketone	ND	mg/l		0.055	10/07/04	IMR
Chloroform	ND	mg/l		0.010	10/07/04	IMR
Carbon tetrachloride	ND	mg/l		0.010	10/07/04	IMR
Benzene	ND	mg/l		0.010	10/07/04	IMR
1,2-Dichloroethane	ND	mg/l		0.010	10/07/04	IMR
Trichloroethene	ND	mg/l		0.010	10/07/04	IMR
etrachloroethene	ND	mg/l		0.010	10/07/04	IMR
hlorobenzene	ND	mg/l		0.010	10/07/04	IMR
1,4-Dichlorobenzene	ND	mg/l		0.010	10/07/04	IMR
TCLP, EXTRACT LEVEL:						
Hexachloroethane	ND	mg/l		0.025	10/11/04	MWB/IMR
Cresols	ND	mg/l		0.020	10/11/04	MWB/IMR
Nitrobenzene	ND	mg/l		0.010	10/11/04	MWB/IMR
Hexachlorobutadiene	ND	mg/l		0.010	10/11/04	MWB/IMR
2,4,6-Trichlorophenol	ND	mg/l		0.020	10/11/04	MWB/IMR
2,4,5-Trichlorophenol	ND	mg/l		0.020	10/11/04	MWB/IMR
2,4-Dinitrotoluene	ND	mg/l		0.010	10/11/04	MWB/IMR
Pentachlorophenol	ND	mg/l		0.035	10/11/04	MWB/IMR
Hexachlorobenzene	ND	mg/l		0.010	10/11/04	MWB/IMR
Pyridine	ND	mg/l		0.050	10/11/04	MWB/IMR

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Clarifier Tank-North and South (composite)
Sample date: 09/30/04
HVLI sample: L24519-10

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
PCB, total	ND	mg/kg		4.5	10/11/04	IMR
F Series Volatile Compounds:						
Acetone	ND	ug/kg		190000	10/23/04	IMR
Benzene	ND	ug/kg		160000	10/23/04	IMR
n-Butanol	ND	ug/kg	5	320000	10/23/04	IMR
2-Butanone	ND	ug/kg		250000	10/23/04	IMR
Carbon disulfide	ND	ug/kg		160000	10/23/04	IMR
Carbon tetrachloride	ND	ug/kg		160000	10/23/04	IMR
Chlorobenzene	ND	ug/kg		160000	10/23/04	IMR
o-Cresol	ND	ug/kg	5	320000	10/23/04	IMR
m+p Cresol	ND	ug/kg	5	320000	10/23/04	IMR
Cyclohexanone	ND	ug/kg	5	320000	10/23/04	IMR
1,2-Dichlorobenzene	ND	ug/kg		160000	10/23/04	IMR
2-Ethoxyethanol	ND	ug/kg	5	320000	10/23/04	IMR
Ethyl acetate	ND	ug/kg	5	160000	10/23/04	IMR
Ethylbenzene	ND	ug/kg		160000	10/23/04	IMR
Diethyl ether	ND	ug/kg	5	160000	10/23/04	IMR
Isobutanol	ND	ug/kg	5	320000	10/23/04	IMR
Methylene chloride	ND	ug/kg		160000	10/23/04	IMR
Methyl-iso-butyl ketone	ND	ug/kg		160000	10/23/04	IMR
Nitrobenzene	ND	ug/kg		320000	10/23/04	IMR
2-Nitropropane	ND	ug/kg		320000	10/23/04	IMR
Pyridine	ND	ug/kg	5	320000	10/23/04	IMR
Tetrachloroethene	ND	ug/kg		160000	10/23/04	IMR
Toluene	ND	ug/kg		160000	10/23/04	IMR
1,1,1-Trichloroethane	ND	ug/kg		160000	10/23/04	IMR
1,1,2-Trichloroethane	ND	ug/kg		160000	10/23/04	IMR
Trichloroethene	ND	ug/kg		160000	10/23/04	IMR
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	160000	10/23/04	IMR
Trichlorofluoromethane	ND	ug/kg		160000	10/23/04	IMR
Xylenes	ND	ug/kg		200000	10/23/04	IMR
IGNITABILITY:						
Flash Point-closed cup	>200	deg F		0.00	10/18/04	RSL
REACTIVITY:						
Cyanide, reactive	ND	mg/kg		0.23	10/12/04	RWL
REACTIVITY:						
Sulfides, reactive	ND	mg/kg		0.45	10/12/04	RWL
TCLP, EXTRACT LEVEL:						
Mercury	ND	mg/l		0.0010	10/08/04	MW

Huron Valley Laboratories, Inc

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Clarifier Tank-North and South (composite)
Sample date: 09/30/04
HVLI sample: L24519-10

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
TCLP, EXTRACT LEVEL:						
Arsenic	0.025	mg/l		0.020	10/12/04	LJJ
Barium	0.019	mg/l		0.0030	10/12/04	LJJ
Cadmium	ND	mg/l		0.0030	10/12/04	LJJ
Chromium	0.0094	mg/l		0.0020	10/12/04	LJJ
Lead	ND	mg/l		0.0070	10/12/04	LJJ
Selenium	ND	mg/l		0.040	10/12/04	LJJ
Silver	ND	mg/l		0.010	10/12/04	LJJ
TCLP, EXTRACT LEVEL						
Vinyl chloride	ND	mg/l		0.010	10/07/04	IMR
1,1-Dichloroethene	ND	mg/l		0.010	10/07/04	IMR
Methyl ethyl ketone	ND	mg/l		0.055	10/07/04	IMR
Chloroform	ND	mg/l		0.010	10/07/04	IMR
Carbon tetrachloride	ND	mg/l		0.010	10/07/04	IMR
Benzene	ND	mg/l		0.010	10/07/04	IMR
1,2-Dichloroethane	ND	mg/l		0.010	10/07/04	IMR
Trichloroethene	ND	mg/l		0.010	10/07/04	IMR
Tetrachloroethene	ND	mg/l		0.010	10/07/04	IMR
Chlorobenzene	ND	mg/l		0.010	10/07/04	IMR
1,4-Dichlorobenzene	ND	mg/l		0.010	10/07/04	IMR
TCLP, EXTRACT LEVEL:						
Hexachloroethane	ND	mg/l		0.025	10/11/04	MWB/IMR
Cresols	0.033	mg/l		0.020	10/11/04	MWB/IMR
Nitrobenzene	ND	mg/l		0.010	10/11/04	MWB/IMR
Hexachlorobutadiene	ND	mg/l		0.010	10/11/04	MWB/IMR
2,4,6-Trichlorophenol	ND	mg/l		0.020	10/11/04	MWB/IMR
2,4,5-Trichlorophenol	ND	mg/l		0.020	10/11/04	MWB/IMR
2,4-Dinitrotoluene	ND	mg/l		0.010	10/11/04	MWB/IMR
Pentachlorophenol	ND	mg/l		0.035	10/11/04	MWB/IMR
Hexachlorobenzene	ND	mg/l		0.010	10/11/04	MWB/IMR
Pyridine	ND	mg/l		0.050	10/11/04	MWB/IMR

Huron Valley Laboratories, Inc.
DATA QUALIFYING NOTES

Data which may be suspect or in need of an explanation is flagged by a number in the Qual column for each parameter. That number corresponds to one of the following notes. If no number appears in that column following the parameter, there is no flag on that data.

Note 1: The indicated parameter was extracted and/or analyzed past the USEPA recommended holding time.

Note 2: The sample was received past the USEPA recommended holding time for the indicated parameter.

Note 3: The % recovery for the indicated parameter is outside the acceptance limits. See enclosed QC report.

Note 4: The RPD for the indicated parameter is outside the acceptance limit. See enclosed QC report.

Note 5: See project narrative for explanation.

Note 6: Traces of the indicated parameter appeared in the laboratory blank above the PQL. This amount may contribute to the concentrations reported for the samples.

Note 7: The sample was extracted past the USEPA recommended holding time for the indicated parameter.

Note 8 The dissolved oxygen level in the dilution water blank exceeds acceptance limit. See enclosed QC report.

Note 9: BOD value may be higher; all available dissolved oxygen was consumed by the sample.

Note 10: Overgrowth = Culture plate was overgrown with competing non Coliform bacteria.

Note 11: TNTC = Too Numerous to Count $>2.0 \times 10^3$

Note 12: TNTC = Too Numerous to Count $>2.0 \times 10^4$

Note 13: TNTC = Too Numerous to Count $>2.0 \times 10^5$

Note 14: TNTC = Too Numerous to Count $>2.0 \times 10^6$

Note 15: TNTC = Too Numerous to Count $>2.0 \times 10^7$

Note 16: This sample was weighed, dried and desiccated within the recommended US EPA holding times.

Note 17: This sample was filtered, weighed, dried and desiccated within the recommended US EPA holding times.

Note 18 Sample vial/bottle for VOC analysis contained headspace greater than USEPA recommendations

Analysts

Initials	Analyst
ADA	Andrew D. Ambrus
AMB	Ana Maria Berger
BCH	Brian C. Hall
FJH	Fred J. Hoitash
IMR	Irina M. Raducan
JRS	Jenni R. Stephenson
KSG	Katherine S. Gronda
LJJ	Lester J. Janssen
MW	Meenu Wadehra
MWB	Mark W. Bailey
PAG	Phyllis A. Goeddeke
RSL	Robert S. Lynch
RWL	Robyn W. Lefler
TLK	Theresa L. Kerr
SUB	Subcontracted
CUS	Customer

Huron Valley Laboratories, Inc.

PROJECT NARRATIVE
HVLI Project L24519

This report contains the analytical results for samples received from ECE, Inc. for the analysis indicated in the Chain of Custody documentation.

The compounds indicated in the report were screened for their presence using the National Bureau of Standards 98k Spectrum Library and the EPA Priority Pollutants Spectrum Library and no matches were found. The PQLs listed for these compounds are estimated values. The estimations result from established PQLs of similarly structured compounds.

All analyses were performed by USEPA approved methods and the data, except as noted in the report, met all QC acceptance criteria.

Huron Valley Laboratories, Inc. Surrogate QC Report

Sample ID	Parameter	Method	Analysis date	ACCURACY DATA Analytical Value	True Value	% Recovery	LCL	UCL	Units
VMSIC102304/LCS	1,2-Dichloroethane-d_4	8260B	10/23/04	54.8	50.0	109.66	60.00	120.00	µg/l
VMSIC102304/LCS	Toluene-d_8	8260B	10/23/04	53.9	50.0	107.81	60.00	120.00	µg/l
VMSIC102304/LCS	4-Bromofluorobenzene	8260B	10/23/04	50.0	50.0	100.07	60.00	120.00	µg/l
MB	1,2-Dichloroethane-d_4	8260B	10/23/04	53.3	50.0	106.60	60.00	120.00	µg/l
MB	Toluene-d_8	8260B	10/23/04	52.6	50.0	105.29	60.00	120.00	µg/l
MB	4-Bromofluorobenzene	8260B	10/23/04	41.2	50.0	82.41	60.00	120.00	µg/l
L24519-1	1,2-Dichloroethane-d_4	8260B	10/23/04	5674.0	5000.0	113.48	60.00	120.00	µg/kg
L24519-1	Toluene-d_8	8260B	10/23/04	5181.6	5000.0	103.63	60.00	120.00	µg/kg
L24519-1	4-Bromofluorobenzene	8260B	10/23/04	3917.4	5000.0	78.35	60.00	120.00	µg/kg
L24519-2	1,2-Dichloroethane-d_4	8260B	10/23/04	4934.4	5000.0	98.69	60.00	120.00	µg/kg
L24519-2	Toluene-d_8	8260B	10/23/04	5063.8	5000.0	101.28	60.00	120.00	µg/kg
L24519-2	4-Bromofluorobenzene	8260B	10/23/04	3973.2	5000.0	79.46	60.00	120.00	µg/kg
L24519-3	1,2-Dichloroethane-d_4	8260B	10/23/04	5496.6	5000.0	109.93	60.00	120.00	µg/kg
L24519-3	Toluene-d_8	8260B	10/23/04	5246.0	5000.0	104.92	60.00	120.00	µg/kg
L24519-3	4-Bromofluorobenzene	8260B	10/23/04	3920.0	5000.0	78.40	60.00	120.00	µg/kg
L24519-4	1,2-Dichloroethane-d_4	8260B	10/23/04	5462.4	5000.0	109.25	60.00	120.00	µg/kg
L24519-4	Toluene-d_8	8260B	10/23/04	5240.4	5000.0	104.81	60.00	120.00	µg/kg
L24519-4	4-Bromofluorobenzene	8260B	10/23/04	4032.2	5000.0	80.64	60.00	120.00	µg/kg
L24519-5	1,2-Dichloroethane-d_4	8260B	10/23/04	5098.2	5000.0	101.96	60.00	120.00	µg/kg
L24519-5	Toluene-d_8	8260B	10/23/04	5033.4	5000.0	100.67	60.00	120.00	µg/kg
L24519-5	4-Bromofluorobenzene	8260B	10/23/04	3921.2	5000.0	78.42	60.00	120.00	µg/kg
L24519-6	1,2-Dichloroethane-d_4	8260B	10/23/04	5790.4	5000.0	115.81	60.00	120.00	µg/kg
L24519-6	Toluene-d_8	8260B	10/23/04	4926.6	5000.0	98.53	60.00	120.00	µg/kg
L24519-6	4-Bromofluorobenzene	8260B	10/23/04	3822.6	5000.0	76.45	60.00	120.00	µg/kg
L24519-6spa	1,2-Dichloroethane-d_4	8260B	10/23/04	5465.2	5000.0	109.30	60.00	120.00	µg/kg
L24519-6spa	Toluene-d_8	8260B	10/23/04	5209.0	5000.0	104.18	60.00	120.00	µg/kg
L24519-6spa	4-Bromofluorobenzene	8260B	10/23/04	4963.4	5000.0	99.27	60.00	120.00	µg/kg
L24519-6spb	1,2-Dichloroethane-d_4	8260B	10/23/04	5627.8	5000.0	112.56	60.00	120.00	µg/kg
L24519-6spb	Toluene-d_8	8260B	10/23/04	5383.2	5000.0	107.66	60.00	120.00	µg/kg
L24519-6spb	4-Bromofluorobenzene	8260B	10/23/04	4940.6	5000.0	98.81	60.00	120.00	µg/kg
L24519-7	1,2-Dichloroethane-d_4	8260B	10/23/04	4973.2	5000.0	99.46	60.00	120.00	µg/kg
L24519-7	Toluene-d_8	8260B	10/23/04	4881.6	5000.0	97.63	60.00	120.00	µg/kg
L24519-7	4-Bromofluorobenzene	8260B	10/23/04	3777.2	5000.0	75.54	60.00	120.00	µg/kg
L24519-9	1,2-Dichloroethane-d4	8260B	10/23/04	4877.8	5000.0	97.56	60.00	121.00	µg/kg
L24519-9	Toluene-d8	8260B	10/23/04	5158.2	5000.0	103.16	60.00	122.00	µg/kg
L24519-9	4-Bromofluorobenzene	8260B	10/23/04	4160.6	5000.0	83.21	60.00	123.00	µg/kg
L24519-10	1,2-Dichloroethane-d4	8260B	10/23/04	5714.6	5000.0	114.29	60.00	124.00	µg/kg
L24519-10	Toluene-d8	8260B	10/23/04	5154.4	5000.0	103.09	60.00	125.00	µg/kg
L24519-10	4-Bromofluorobenzene	8260B	10/23/04	3769.4	5000.0	75.39	60.00	126.00	µg/kg

%Recovery =100*Analytical value/True value
Acceptable %Recovery values are between the lower (LCL) and upper (UCL) control limits

Approved by JMP

Huron Valley Laboratories, Inc. Surrogate QC Report

Sample ID	Parameter	Method	Analysis date	ACCURACY DATA Analytical Value	True Value	% Recovery	LCL	UCL	Units
VMSIC102304/LCS	1,2-Dichloroethane-d_4	8260B	10/23/04	54.8	50.0	109.66	60.00	120.00	µg/l
VMSIC102304/LCS	Toluene-d_8	8260B	10/23/04	53.9	50.0	107.81	60.00	120.00	µg/l
VMSIC102304/LCS	4-Bromofluorobenzene	8260B	10/23/04	50.0	50.0	100.07	60.00	120.00	µg/l
MB	1,2-Dichloroethane-d_4	8260B	10/23/04	53.3	50.0	106.60	60.00	120.00	µg/l
MB	Toluene-d_8	8260B	10/23/04	52.6	50.0	105.29	60.00	120.00	µg/l
MB	4-Bromofluorobenzene	8260B	10/23/04	41.2	50.0	82.41	60.00	120.00	µg/l
L24519-11	1,2-Dichloroethane-d_4	8260B	10/23/04	5334.8	5000.0	106.70	60.00	120.00	µg/kg
L24519-11	Toluene-d_8	8260B	10/23/04	4492.6	5000.0	89.85	60.00	120.00	µg/kg
L24519-11	4-Bromofluorobenzene	8260B	10/23/04	3759.2	5000.0	75.18	60.00	120.00	µg/kg
L24519-12	1,2-Dichloroethane-d_4	8260B	10/23/04	5301.2	5000.0	106.02	60.00	120.00	µg/kg
L24519-12	Toluene-d_8	8260B	10/23/04	5270.2	5000.0	105.40	60.00	120.00	µg/kg
L24519-12	4-Bromofluorobenzene	8260B	10/23/04	4076.0	5000.0	81.52	60.00	120.00	µg/kg
L24519-8	1,2-Dichloroethane-d_4	8260B	10/23/04	5426.4	5000.0	108.53	60.00	120.00	µg/kg
L24519-8	Toluene-d_8	8260B	10/23/04	4824.0	5000.0	96.48	60.00	120.00	µg/kg
L24519-8	4-Bromofluorobenzene	8260B	10/23/04	3907.2	5000.0	78.14	60.00	120.00	µg/kg
L24519-8spa	1,2-Dichloroethane-d_4	8260B	10/23/04	5315.0	5000.0	106.30	60.00	120.00	µg/kg
L24519-8spa	Toluene-d_8	8260B	10/23/04	5250.4	5000.0	105.01	60.00	120.00	µg/kg
L24519-8spa	4-Bromofluorobenzene	8260B	10/23/04	4871.8	5000.0	97.44	60.00	120.00	µg/kg
L24519-8spb	1,2-Dichloroethane-d_4	8260B	10/23/04	5360.0	5000.0	107.20	60.00	120.00	µg/kg
L24519-8spb	Toluene-d_8	8260B	10/23/04	5297.4	5000.0	105.95	60.00	120.00	µg/kg
L24519-8spb	4-Bromofluorobenzene	8260B	10/23/04	4973.8	5000.0	99.48	60.00	120.00	µg/kg

%Recovery = 100*Analytical value/True value
Acceptable %Recovery values are between the lower (LCL) and upper (UCL) control limits

Approved by

Huron Valley Laboratories, Inc. QC Report

					PRECISION DATA							ACCURACY DATA								
												Matrix spike			Laboratory Control Sample					
Sample ID	Parameter	Method	Analysis date	Method Blank µg/l	SPA	SPB	Mean	RPD	CL %RSD	Sample Value	True Value	% Rec.	LCL	UCL	LCS Value µg/l	True Value µg/l	% Rec.	LCL	UCL	Units
L24519-8	n-Butanol	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	o-Cresol	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	m+p-Cresol	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	Cyclohexanone	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	2-Ethoxyethanol	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	Ethyl acetate	8260B	10/23/04	< 1.0				**		< 82										mg/kg
L24519-8	Isobutanol	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	Pyridine	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	1,1,2-Trichlorotrifluoroethane	8260B	10/23/04	< 1.0				**		< 82										mg/kg
L24519-8	Acetone	8260B	10/23/04	< 1.2				**		< 96										mg/kg
L24519-8	Benzene	8260B	10/23/04	< 1.0	3385	3640	3513	7.2	40.0	< 82	3268	107.49	60.0	140.0	44.2	40.0	110.6	60.0	140.0	mg/kg
L24519-8	2-Butanone	8260B	10/23/04	< 1.5				**		< 126										mg/kg
L24519-8	Carbon disulfide	8260B	10/23/04	< 1.0				**		< 82										mg/kg
L24519-8	Carbon tetrachloride	8260B	10/23/04	< 1.0	3054	3194	3124	4.5	40.0	< 82	3268	95.60	60.0	140.0	37.7	40.0	94.1	60.0	140.0	mg/kg
L24519-8	Chlorobenzene	8260B	10/23/04	< 1.0	2781	2953	2867	6.0	40.0	< 82	3268	87.73	60.0	140.0	39.0	40.0	97.4	60.0	140.0	mg/kg
L24519-8	1,2-Dichlorobenzene	8260B	10/23/04	< 1.0	2853	3002	2927	5.1	40.0	< 82	3268	89.58	60.0	140.0	40.7	40.0	101.9	60.0	140.0	mg/kg
L24519-8	Ethylbenzene	8260B	10/23/04	< 1.0	2892	3033	2963	4.8	40.0	< 82	3268	90.66	60.0	140.0	38.7	40.0	96.8	60.0	140.0	mg/kg
L24519-8	Diethyl ether	8260B	10/23/04	< 1.0				**		< 82										mg/kg
L24519-8	Methylene chloride	8260B	10/23/04	< 1.0	2879	3217	3048	11.1	40.0	< 82	3268	93.26	60.0	140.0	41.4	40.0	103.5	60.0	140.0	mg/kg
L24519-8	4-Methyl-2-pentanone	8260B	10/23/04	< 1.0				**		< 82										mg/kg
L24519-8	Nitrobenzene	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	2-Nitropropane	8260B	10/23/04	< 2.0				**		< 163										mg/kg
L24519-8	Tetrachloroethene	8260B	10/23/04	< 1.0	2691	2742	2717	1.9	40.0	< 82	3268	83.14	60.0	140.0	33.2	40.0	83.0	60.0	140.0	mg/kg
L24519-8	Toluene	8260B	10/23/04	< 1.0	3302	3480	3391	5.3	40.0	< 82	3268	103.77	60.0	140.0	43.5	40.0	108.7	60.0	140.0	mg/kg
L24519-8	1,1,1-Trichloroethane	8260B	10/23/04	< 1.0	3424	3566	3495	4.1	40.0	< 82	3268	106.94	60.0	140.0	41.3	40.0	103.2	60.0	140.0	mg/kg
L24519-8	1,1,2-Trichloroethane	8260B	10/23/04	< 1.0	3190	3539	3365	10.4	40.0	< 82	3268	102.96	60.0	140.0	47.5	40.0	118.8	60.0	140.0	mg/kg
L24519-8	Trichloroethene	8260B	10/23/04	< 1.0	2898	3042	2970	4.8	40.0	< 82	3268	90.88	60.0	140.0	37.3	40.0	93.2	60.0	140.0	mg/kg
L24519-8	Trichlorofluoromethane	8260B	10/23/04	< 1.0	3752	3919	3835	4.4	40.0	< 82	3268	117.36	60.0	140.0	38.7	40.0	96.7	60.0	140.0	mg/kg
L24519-8	o-Xylene	8260B	10/23/04	< 1.2	2932	3118	3025	6.2	40.0	< 101	3268	92.56	60.0	140.0	40.0	40.0	99.9	60.0	140.0	mg/kg
L24519-8	m+p-Xylene	8260B	10/23/04	< 1.2	5836	6195	6015	6.0	40.0	< 101	6536	92.04	60.0	140.0	80.3	80.0	100.4	60.0	140.0	mg/kg

** See project narrative

Mean = (A+B)/2

RPD = 100*ABS(A-B)/Mean

Acceptable RPD values are lower than the control limit (CL).

%Recovery = 100*(Spike value-Sample value)/True value

Acceptable %Recovery values are between the lower (LCL) and upper (UCL) control limits.

Approved by TJM

SNA12/04IR
00302

Huron Valley Laboratories, Inc. Surrogate QC Report

ACCURACY DATA

Sample ID	Parameter	Method	Analysis date	Analytical Value	True Value	% Recovery	LCL	UCL	Units
VMSIC100704/LCS	1,2-Dichloroethane-d_4	8260B	10/07/04	49.0	50.0	97.98	60.00	120.00	µg/l
VMSIC100704/LCS	Toluene-d_8	8260B	10/07/04	48.9	50.0	97.71	60.00	120.00	µg/l
VMSIC100704/LCS	4-Bromofluorobenzene	8260B	10/07/04	48.4	50.0	96.86	60.00	120.00	µg/l
MB	1,2-Dichloroethane-d_4	8260B	10/07/04	47.0	50.0	93.97	60.00	120.00	µg/l
MB	Toluene-d_8	8260B	10/07/04	47.6	50.0	95.30	60.00	120.00	µg/l
MB	4-Bromofluorobenzene	8260B	10/07/04	46.5	50.0	93.04	60.00	120.00	µg/l
L24519-1X	1,2-Dichloroethane-d_4	8260B	10/07/04	517.7	500.0	103.53	80.00	120.00	µg/l
L24519-1X	Toluene-d_8	8260B	10/07/04	486.5	500.0	97.30	80.00	120.00	µg/l
L24519-1X	4-Bromofluorobenzene	8260B	10/07/04	468.4	500.0	93.68	80.00	120.00	µg/l
L24519-1XSPA	1,2-Dichloroethane-d_4	8260B	10/07/04	528.4	500.0	105.69	80.00	120.00	µg/l
L24519-1XSPA	Toluene-d_8	8260B	10/07/04	490.7	500.0	98.14	80.00	120.00	µg/l
L24519-1XSPA	4-Bromofluorobenzene	8260B	10/07/04	471.8	500.0	94.36	80.00	120.00	µg/l
L24519-1XSPB	1,2-Dichloroethane-d_4	8260B	10/07/04	524.8	500.0	104.96	80.00	120.00	µg/l
L24519-1XSPB	Toluene-d_8	8260B	10/07/04	485.4	500.0	97.08	80.00	120.00	µg/l
L24519-1XSPB	4-Bromofluorobenzene	8260B	10/07/04	469.1	500.0	93.82	80.00	120.00	µg/l
L24519-6X	1,2-Dichloroethane-d_4	8260B	10/07/04	505.7	500.0	101.13	80.00	120.00	µg/l
L24519-6X	Toluene-d_8	8260B	10/07/04	473.5	500.0	94.69	80.00	120.00	µg/l
L24519-6X	4-Bromofluorobenzene	8260B	10/07/04	468.3	500.0	93.66	80.00	120.00	µg/l
L24519-7X	1,2-Dichloroethane-d_4	8260B	10/07/04	498.5	500.0	99.69	80.00	120.00	µg/l
L24519-7X	Toluene-d_8	8260B	10/07/04	484.6	500.0	96.91	80.00	120.00	µg/l
L24519-7X	4-Bromofluorobenzene	8260B	10/07/04	464.1	500.0	92.82	80.00	120.00	µg/l
L24519-3X	1,2-Dichloroethane-d_4	8260B	10/07/04	540.4	500.0	108.08	80.00	120.00	µg/l
L24519-3X	Toluene-d_8	8260B	10/07/04	490.2	500.0	98.04	80.00	120.00	µg/l
L24519-3X	4-Bromofluorobenzene	8260B	10/07/04	469.5	500.0	93.89	80.00	120.00	µg/l
L24519-5X	1,2-Dichloroethane-d_4	8260B	10/07/04	511.6	500.0	102.31	80.00	120.00	µg/l
L24519-5X	Toluene-d_8	8260B	10/07/04	473.7	500.0	94.74	80.00	120.00	µg/l
L24519-5X	4-Bromofluorobenzene	8260B	10/07/04	462.1	500.0	92.41	80.00	120.00	µg/l
L24519-4a	1,2-Dichloroethane-d_4	8260B	10/07/04	515.9	500.0	103.18	80.00	120.00	µg/l
L24519-4a	Toluene-d_8	8260B	10/07/04	478.5	500.0	95.70	80.00	120.00	µg/l
L24519-4a	4-Bromofluorobenzene	8260B	10/07/04	468.8	500.0	93.76	80.00	120.00	µg/l
L24519-2a	1,2-Dichloroethane-d_4	8260B	10/07/04	500.6	500.0	100.12	80.00	120.00	µg/l
L24519-2a	Toluene-d_8	8260B	10/07/04	485.9	500.0	97.18	80.00	120.00	µg/l
L24519-2a	4-Bromofluorobenzene	8260B	10/07/04	461.2	500.0	92.23	80.00	120.00	µg/l
L24519-8a	1,2-Dichloroethane-d_4	8260B	10/07/04	519.7	500.0	103.93	80.00	120.00	µg/l
L24519-8a	Toluene-d_8	8260B	10/07/04	483.2	500.0	96.64	80.00	120.00	µg/l
L24519-8a	4-Bromofluorobenzene	8260B	10/07/04	465.5	500.0	93.10	80.00	120.00	µg/l
L24519-9a	1,2-Dichloroethane-d_4	8260B	10/07/04	490.0	500.0	98.00	80.00	120.00	µg/l
L24519-9a	Toluene-d_8	8260B	10/07/04	477.1	500.0	95.42	80.00	120.00	µg/l
L24519-9a	4-Bromofluorobenzene	8260B	10/07/04	467.2	500.0	93.43	80.00	120.00	µg/l
L24519-10a	1,2-Dichloroethane-d_4	8260B	10/07/04	507.6	500.0	101.52	80.00	120.00	µg/l
L24519-10a	Toluene-d_8	8260B	10/07/04	489.2	500.0	97.85	80.00	120.00	µg/l
L24519-10a	4-Bromofluorobenzene	8260B	10/07/04	462.5	500.0	92.50	80.00	120.00	µg/l

%Recovery =100*Analytical value/True value
Acceptable %Recovery values are between the lower (LCL) and upper (UCL) control limits

Approved by IMR

Huron Valley Laboratories, Inc. Surrogate QC Report
For Extraction Date 10/06/04

ample ID	Parameter	Method	Analysis date	ACCURACY DATA Analytical Value	True Value		% Recovery	LCL	UCL	Units
SMSIC051104	2-Fluorophenol	8270	10/11/04	53.9	50.0		107.74	10.00	130.00	µg/ml
SMSIC051104	Phenol-d_5	8270	10/11/04	57.1	50.0		114.24	10.00	130.00	µg/ml
SMSIC051104	Nitrobenzene-d_5	8270	10/11/04	43.3	50.0		86.62	48.00	120.00	µg/ml
SMSIC051104	2-Flurobiphenyl	8270	10/11/04	47.7	50.0		95.30	52.00	120.00	µg/ml
SMSIC051104	2,4,5-Tribromophenol	8270	10/11/04	52.3	50.0		104.54	46.00	120.00	µg/ml
SMSIC051104	Terphenyl-d_{14}	8270	10/11/04	55.5	50.0		111.00	33.00	127.00	µg/ml
LCS(10/06/04)	2-Fluorophenol	8270	10/11/04	29.1	80.0		36.33	10.00	120.00	µg/l
LCS(10/06/04)	Phenol-d_5	8270	10/11/04	32.8	80.0		41.03	10.00	120.00	µg/l
LCS(10/06/04)	Nitrobenzene-d_5	8270	10/11/04	64.3	80.0		80.35	36.00	120.00	µg/l
LCS(10/06/04)	2-Flurobiphenyl	8270	10/11/04	76.8	80.0		95.95	49.00	120.00	µg/l
LCS(10/06/04)	2,4,5-Tribromophenol	8270	10/11/04	65.5	80.0		81.88	46.00	120.00	µg/l
LCS(10/06/04)	Terphenyl-d_{14}	8270	10/11/04	88.7	80.0		110.88	39.00	120.00	µg/l
MB(10/06/04	2-Fluorophenol	8270	10/11/04	16.9	40.0		42.15	10.00	120.00	µg/l
MB(10/06/04	Phenol-d_6	8270	10/11/04	18.1	40.0		45.28	10.00	120.00	µg/l
MB(10/06/04	Nitrobenzene-d_5	8270	10/11/04	32.6	40.0		81.55	48.00	120.00	µg/l
MB(10/06/04	2-Flurobiphenyl	8270	10/11/04	37.7	40.0		94.28	52.00	120.00	µg/l
MB(10/06/04	2,4,5-Tribromophenol	8270	10/11/04	27.7	40.0		69.15	37.00	120.00	µg/l
MB(10/06/04	Terphenyl-d_{14}	8270	10/11/04	45.0	40.0		112.48	33.00	127.00	µg/l
L24519-5	2-Fluorophenol	8270	10/11/04	165.0	400.0		41.25	10.00	120.00	µg/l
L24519-5	Phenol-d_5	8270	10/11/04	174.4	400.0		43.60	10.00	120.00	µg/l
L24519-5	Nitrobenzene-d_5	8270	10/11/04	321.7	400.0		80.43	48.00	120.00	µg/l
L24519-5	2-Flurobiphenyl	8270	10/11/04	367.0	400.0		91.75	52.00	120.00	µg/l
L24519-5	2,4,5-Tribromophenol	8270	10/11/04	342.4	400.0		85.60	37.00	120.00	µg/l
L24519-5	Terphenyl-d_{14}	8270	10/11/04	435.4	400.0		108.85	33.00	127.00	µg/l
L24519-6	2-Fluorophenol	8270	10/11/04	170.2	400.0		42.55	10.00	120.00	µg/l
L24519-6	Phenol-d_6	8270	10/11/04	180.4	400.0		45.10	10.00	120.00	µg/l
L24519-6	Nitrobenzene-d_5	8270	10/11/04	295.6	400.0		73.90	48.00	120.00	µg/l
L24519-6	2-Flurobiphenyl	8270	10/11/04	179.4	400.0	*	44.85	52.00	120.00	µg/l
L24519-6	2,4,5-Tribromophenol	8270	10/11/04	370.9	400.0		92.73	37.00	120.00	µg/l
L24519-6	Terphenyl-d_{14}	8270	10/11/04	436.3	400.0		109.08	33.00	127.00	µg/l
L24519-6spa	2-Fluorophenol	8270	10/11/04	165.5	400.0		41.38	10.00	120.00	µg/l
L24519-6spa	Phenol-d_6	8270	10/11/04	177.1	400.0		44.28	10.00	120.00	µg/l
L24519-6spa	Nitrobenzene-d_5	8270	10/11/04	309.2	400.0		77.30	48.00	120.00	µg/l
L24519-6spa	2-Flurobiphenyl	8270	10/11/04	363.5	400.0		90.88	52.00	120.00	µg/l
L24519-6spa	2,4,5-Tribromophenol	8270	10/11/04	361.6	400.0		90.40	37.00	120.00	µg/l
4519-6spa	Terphenyl-d_{14}	8270	10/11/04	427.9	400.0		106.98	33.00	127.00	µg/l
519-6spb	2-Fluorophenol	8270	10/11/04	168.3	400.0		42.08	10.00	120.00	µg/l
4519-6spb	Phenol-d_5	8270	10/11/04	176.9	400.0		44.23	10.00	120.00	µg/l
L24519-6spb	Nitrobenzene-d_5	8270	10/11/04	325.3	400.0		81.33	48.00	120.00	µg/l
L24519-6spb	2-Flurobiphenyl	8270	10/11/04	335.6	400.0		83.90	52.00	120.00	µg/l
L24519-6spb	2,4,5-Tribromophenol	8270	10/11/04	375.8	400.0		93.95	37.00	120.00	µg/l
L24519-6spb	Terphenyl-d_{14}	8270	10/11/04	452.8	400.0		113.20	33.00	127.00	µg/l
L24519-7	2-Fluorophenol	8270	10/11/04	257.7	400.0		64.43	10.00	120.00	µg/l
L24519-7	Phenol-d_5	8270	10/11/04	271.8	400.0		67.95	10.00	120.00	µg/l
L24519-7	Nitrobenzene-d_5	8270	10/11/04	415.9	400.0		103.98	48.00	120.00	µg/l
L24519-7	2-Flurobiphenyl	8270	10/11/04	498.8	400.0	*	124.70	52.00	120.00	µg/l
L24519-7	2,4,5-Tribromophenol	8270	10/11/04	457.5	400.0		114.38	37.00	120.00	µg/l
L24519-7	Terphenyl-d_{14}	8270	10/11/04	554.5	400.0	*	138.63	33.00	127.00	µg/l
L24519-10	2-Fluorophenol	8270	10/11/04	188.3	400.0		47.08	10.00	120.00	µg/l
L24519-10	Phenol-d_5	8270	10/11/04	193.5	400.0		48.38	10.00	120.00	µg/l
L24519-10	Nitrobenzene-d_5	8270	10/11/04	351.5	400.0		87.88	48.00	120.00	µg/l
L24519-10	2-Flurobiphenyl	8270	10/11/04	386.4	400.0		96.60	52.00	120.00	µg/l
L24519-10	2,4,5-Tribromophenol	8270	10/11/04	397.2	400.0		99.30	37.00	120.00	µg/l
L24519-10	Terphenyl-d_{14}	8270	10/11/04	470.1	400.0		117.53	33.00	127.00	µg/l
L24519-1	2-Fluorophenol	8270	10/11/04	117.0	400.0		29.25	10.00	120.00	µg/l
L24519-1	Phenol-d_5	8270	10/11/04	122.0	400.0		30.50	10.00	120.00	µg/l
L24519-1	Nitrobenzene-d_5	8270	10/11/04	254.0	400.0		63.50	48.00	120.00	µg/l
L24519-1	2-Flurobiphenyl	8270	10/11/04	344.5	400.0		86.13	52.00	120.00	µg/l
L24519-1	2,4,5-Tribromophenol	8270	10/11/04	288.0	400.0		72.00	37.00	120.00	µg/l
L24519-1	Terphenyl-d_{14}	8270	10/11/04	341.5	400.0		85.38	33.00	127.00	µg/l
L24519-3	2-Fluorophenol	8270	10/11/04	163.0	400.0		40.75	10.00	120.00	µg/l
L24519-3	Phenol-d_6	8270	10/11/04	155.0	400.0		38.75	10.00	120.00	µg/l
L24519-3	Nitrobenzene-d_5	8270	10/11/04	322.0	400.0		80.50	48.00	120.00	µg/l
L24519-3	2-Flurobiphenyl	8270	10/11/04	389.5	400.0		97.38	52.00	120.00	µg/l
L24519-3	2,4,5-Tribromophenol	8270	10/11/04	353.0	400.0		88.25	37.00	120.00	µg/l
L24519-3	Terphenyl-d_{14}	8270	10/11/04	412.0	400.0		103.00	33.00	127.00	µg/l
L24519-2	2-Fluorophenol	8270	10/11/04		400.0	**		10.00	120.00	µg/l
L24519-2	Phenol-d_5	8270	10/11/04	25.0	400.0	**	6.25	10.00	120.00	µg/l
L24519-2	Nitrobenzene-d_5	8270	10/11/04	367.5	400.0		91.88	48.00	120.00	µg/l
L24519-2	2-Flurobiphenyl	8270	10/11/04	420.0	400.0		105.00	52.00	120.00	µg/l
L24519-2	2,4,5-Tribromophenol	8270	10/11/04	5.0	400.0	**	1.25	37.00	120.00	µg/l
L24519-2	Terphenyl-d_{14}	8270	10/11/04	447.5	400.0		111.88	33.00	127.00	µg/l
L24519-4	2-Fluorophenol	8270	10/11/04	200.0	400.0		50.00	10.00	120.00	µg/l

SNA12/04IR
00304

Huron Valley Laboratories, Inc. Surrogate QC Report
For Extraction Date 10/06/04

Sample ID	Parameter	Method	Analysis date	ACCURACY DATA Analytical Value	True Value	% Recovery	LCL	UCL	Units
L24519-4	Phenol-d_5	8270	10/11/04	222.5	400.0	55.63	10.00	120.00	µg/l
L24519-4	Nitrobenzene-d_5	8270	10/11/04	347.5	400.0	86.88	48.00	120.00	µg/l
L24519-4	2-Flurobiphenyl	8270	10/11/04	430.0	400.0	107.50	52.00	120.00	µg/l
L24519-4	2,4,5-Tribromophenol	8270	10/11/04	265.0	400.0	66.25	37.00	120.00	µg/l
L24519-4	Terphenyl-d_{14}	8270	10/11/04	382.5	400.0	95.63	33.00	127.00	µg/l

* Samples with elevated levels of nontarget compounds may result in % recovery and/or RPD outside the control limits
* * Samples requiring a dilution may result in % recoveries and/or RPD outside the control limits.

%Recovery =100*Analytical value/True value
Acceptable %Recovery values are between the lower (LCL) and upper (UCL) control limits

Approved by DMR

						PRECISION DATA									ACCURACY DATA								
															Matrix spike			Laboratory Control Sample					
Sample ID	Parameter	Method	Analysis date		Method Blank	A	B	Mean		RPD	CL %RSD		Sample Value	True Value		% Rec.	LCL	UCL	LCS Value	True Value	% Rec.	LCL	UCL	Units
L24558-2C	Chlorides	4500Cl D	10/12/04	<	2.00	128.00	127.00	127.50		0.8	2.8		81.00	50.00		93.0	88.4	106.9	50.10	50.00	100.2	97.8	102.3	mg/l
L24574-5C	Chlorides	4500Cl D	10/12/04	<	2.00	94.00	93.60	93.80		0.4	2.8		45.50	50.00		96.6	88.4	106.9	50.10	50.00	100.2	97.8	102.3	mg/l
L24577-3C	Chlorides	4500Cl D	10/12/04	<	2.00	52.20	52.20	52.20		0.0	2.8		2.80	50.00		98.8	88.4	106.9	50.10	50.00	100.2	97.8	102.3	mg/l
L24600-1A	pH	150.1	10/12/04			8.76	8.81	8.79		Acc	0.1		8.76											S.U.
L24519-1A	Reactive cyanide	Ch. 7	10/12/04	<	0.010	2.58	1.36	1.97	*	62.26	15.0	<	0.23	4.17	*	47.3	80.0	120.0	0.17	0.20	83.8	80.0	120.0	mg/kg
L24519-7A	Reactive cyanide	Ch. 7	10/12/04	<	0.010	2.75	3.12	2.94		12.65	15.0	<	0.22	4.76	*	61.7	80.0	120.0	0.16	0.20	82.2	80.0	120.0	mg/kg
L24519-1A	Reactive sulfide	Ch. 7	10/12/04	<	0.02	1.68	1.59	1.63		5.6	35.6		2.15	4.76	*	-10.9	12.5	144.4	0.16	0.20	78.5	69.3	111.5	mg/kg
L24519-7A	Reactive sulfide	Ch. 7	10/12/04	<	0.02	0.13	1.80	0.97	*	172.9	35.6		0.92	3.85	*	1.3	12.5	144.4	0.16	0.20	78.5	69.3	111.5	mg/kg

* Level of non-target compounds resulted in % recovery and/or RPD outside control limits.

Methods from: US EPA and/or Standard Methods
Mean=(A+B)/2
Acceptable sample RPD values are lower than the Upper Control Limit (UCL)
Acceptable %Recovery values are between the Lower (LCL) and Upper (UCL) Limits

% Recovery=100*(Spike Value-Sample Value)/True Value
Method blank concentration based on a 500ml sample size
RPD=100*ABS(A-B)/Mean
% LCS Recovery=100*Analyzed Value/True Value

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1012.xls

Approved by RSC

Sample ID	Parameter	Method	Analysis Date		Method Blank (µg/l)	SPA (mg/kg)	SPB (mg/kg)	Spike Mean (mg/kg)	RPD	CL %RSD		Sample Value (mg/kg)	True Value (mg/kg)		% Rec.	LCS Value (µg/l)	True Value (µg/l)	% Rec.	LCL	UCL	Units
					PRECSION DATA										Matrix spike			Laboratory Control Sample			
					ACCURACY DATA																
L24519-1	PCB, 1016	8082	10/07/04	<	0.04	12.4	13.8	13.12	10.9	40.0	<	4.5	8.6	*	152.2	62.4	106.7	2.5	2.5	99.3	60.0	140.0	mg/kg
L24519-1	PCB, 1260	8082	10/07/04	<	0.04	8.5	10.4	9.91	8.9	40.0	<	4.5	9.6		103.1	68.5	120.4	3.0	2.5	119.3	60.0	140.0	mg/kg

Sample ID	Parameter	Method	Analysis Date	Surrogate data Sample Value	True Value	% Rec.	LCL	UCL	Units
PCBCC100704	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	50.0	50.0	100.0	80.0	120.0	ng/ml
PCBCC100704	Decachlorobiphenyl	8082	10/07/04	50.0	50.0	100.0	80.0	120.0	ng/ml
LCS(10/06/04)	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	0.011	0.010	109.6	80.0	120.0	mg/kg
LCS(10/06/04)	Decachlorobiphenyl	8082	10/07/04	0.011	0.010	111.6	80.0	120.0	mg/kg
MB(10/06/04)	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	0.010	0.010	102.1	80.0	120.0	ng/ml
MB(10/06/04)	Decachlorobiphenyl	8082	10/07/04	0.012	0.010	116.4	80.0	120.0	ng/ml
L24519-1	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	1.25	0.893	139.6	60.0	140.0	mg/kg
L24519-1	Decachlorobiphenyl	8082	10/07/04	1.19	0.893	132.8	60.0	140.0	mg/kg
L24519-1SPA	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	0.863	0.862	100.1	60.0	140.0	mg/kg
L24519-1SPA	Decachlorobiphenyl	8082	10/07/04	1.17	0.862	135.2	60.0	140.0	mg/kg
L24519-1SPB	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	1.16	0.962	120.2	60.0	140.0	mg/kg
L24519-1SPB	Decachlorobiphenyl	8082	10/07/04	1.27	0.962	131.8	60.0	140.0	mg/kg
L24519-2	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	0.674	0.625	107.8	60.0	140.0	mg/kg
L24519-2	Decachlorobiphenyl	8082	10/07/04	0.772	0.625	123.6	60.0	140.0	mg/kg
L24519-3	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	0.453	0.357	126.8	60.0	140.0	mg/kg
L24519-3	Decachlorobiphenyl	8082	10/07/04	0.457	0.357	127.9	60.0	140.0	mg/kg
L24519-4	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	1.87	1.00 *	186.9	60.0	140.0	mg/kg
L24519-4	Decachlorobiphenyl	8082	10/07/04	1.26	1.00	126.5	60.0	140.0	mg/kg
L24519-5	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	0.781	0.806	96.8	60.0	140.0	mg/kg
L24519-5	Decachlorobiphenyl	8082	10/07/04	0.98	0.806	121.4	60.0	140.0	mg/kg
L24519-6	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	1.33	1.09	122.1	60.0	140.0	mg/kg
L24519-6	Decachlorobiphenyl	8082	10/07/04	1.27	1.09	116.4	60.0	140.0	mg/kg
L24519-7	2,4,5,6-Tetrachloro-m-xylene	8082	10/07/04	1.04	0.926	112.3	60.0	140.0	mg/kg
L24519-7	Decachlorobiphenyl	8082	10/07/04	1.09	0.926	117.9	60.0	140.0	mg/kg
ICVS101104(PCB	2,4,5,6-Tetrachloro-m-xylene	8082	10/11/04	50.0	50.0	100.0	80.0	120.0	ng/ml
ICVS101104(PCB	Decachlorobiphenyl	8082	10/11/04	50.0	50.0	100.0	80.0	120.0	ng/ml
L24519-8	2,4,5,6-Tetrachloro-m-xylene	8082	10/11/04	0.928	0.781	118.8	60.0	140.0	mg/kg
L24519-8	Decachlorobiphenyl	8082	10/11/04	0.928	0.781	118.8	60.0	140.0	mg/kg
L24519-9	2,4,5,6-Tetrachloro-m-xylene	8082	10/11/04	1.08	0.962	112.5	60.0	140.0	mg/kg
L24519-9	Decachlorobiphenyl	8082	10/11/04	1.08	0.962	112.5	60.0	140.0	mg/kg
L24519-10	2,4,5,6-Tetrachloro-m-xylene	8082	10/11/04	0.865	0.893	96.9	60.0	140.0	mg/kg
L24519-10	Decachlorobiphenyl	8082	10/11/04	0.865	0.893	96.9	60.0	140.0	mg/kg

* Level of non-target compounds resulted in % recovery and/or RPD outside control limits.

Methods from: US EPA and/or Standard Methods
Mean=(A+B)/2
Acceptable sample RPD values are lower than the Upper Control Limit (UCL)
Acceptable %Recovery values are between the Lower (LCL) and Upper (UCL) Limits

% Recovery=100*(Spike Value-Sample Value)/True Value
Method blank concentration based on a 500ml sample size
RPD=100*ABS(A-B)/Mean
% LCS Recovery=100*Analyzed Value/True Value

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Approved by RS

Project Container Tracking

HVLI Project: L 24519

Plastic

Sample #	4 oz.					8 oz.					16 oz.					32 oz.					16 oz. WM			Bacteria		pH	
	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	None	Other	$Na_2S_2O_3$	Other	✓	adjusted

Glass

Sample #	4 oz. WM		16 oz. WM					32 oz. WM					16 oz. Amber (BR)					32 oz. Amber (BR)					40 ml. VOA			pH	
	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HNO_3	H_2SO_4	NaOH	None	Other	HCl	None	Other	✓	adjuste
1-12											A																
10,11											B																

Temperature of samples received N/A °C Samples received on ice: Yes/No

Comments/pH adjustments: Lab Instructed to Composite 10A + 10B together and 11A + 11B Composited together before Analysis began

Initials: KS Date: 9/30/04 Time: 1430

✓ ✓: Initials: ESC Date: 9/30 Time: 1455

containertracking102402

SNA12/04IR
00308

L24519

Environmental Chemical Enterprises, Inc.
210 Bloomfield Drive Suite 2404 Detroit, MI 48226
(313) 393-2586 FAX (313) 393-2588 ECEinc@worldnet.net

CHAIN OF CUSTODY

093004-A

PROJECT NAME: CRUD OILS
LOCATION: ESC
CONTACT: DONNELL PHONE: 313-393-2584
SAMPLERS SIGNATURE:

SAMPLE #	DATE	START TIME	STOP TIME	FLOW RATE	SAMPLE LOCATION	BTEX	SEMI-VOLATILES	TCLP (VOL.)	TCLP (SEMI-VOL)	Total PCB	% Moisture Same	REMARKS: PAGE 1 OF 2
1	9-30-04				COLD MILL-TANDEM MILL BASEMENT PIT	X	X	X	X	X	X	1. FAX SAMPLE RESULTS AND INVOICE TO DONNELL GREEN (313) 393-2586
2	" "				COLD MILL-SKIN PASS-1	X	X	X	X	X	X	2. E-MAIL SAMPLE RESULTS TO TIM CHIN@CRUCIBLESTEEL.COM
	" "	NO SAMPLE			COLD MILL-SKIN PASS-2	X	X	X	X	X	X	3. Any questions call Donnell Green (313) 393-2584
	" "	NO SAMPLE			COLD MILL-SLITTER-1	X	X	X	X	X	X	4. TCLP Metals must include mercury
3	" "				COLD MILL-RECOIL WELDER	X	X	X	X	X	X	5. Mail Report and Invoice to Donnell Green
4	" "				COLD MILL MACHINE OPERATION TRENCHES	X	X	X	X	X	X	6. See Quote for methods
5	" "				HOT STRIP MILL-NORTH HSM OIL TANK	X	X	X	X	X	X	7. Composite samples #13 & 14
6	" "				HOT STRIP MILL-SOUTH HSM OIL TANK	X	X	X	X	X	X	8. Composite Samples #15 & 16
	" "	NO SAMPLE			SCHAEFFER RD. WWTP-PRIMARY SKIMMER TANK	X	X	X	X	X	X	
7	" "				SCHAEFFER RD. WWTP-SECONDARY BELT/MOP TANK	X	X	X	X	X	X	

RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	RECEIVED BY (Signature)	DATE	RECEIVED BY (SIGNATURE)	TIME
	9-30-04	1410	9/30/04 1418	Jeri Stephen Rec.			
RELINQUISHED BY (SIGNATURE)	Date	Time	Received by	RELINQUISHED BY (Signature)	DATE	RECEIVED BY (SIGNATURE)	TIME
RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	DATE	TIME	REMARKS	

SNA12/04IR
00309

LD4D19

Environmental Chemical Enterprises, Inc.
200 Riverfront Drive Suite 2404 Detroit, MI 48226
(313) 393-2504 FAX (313) 393-2908 ECKInc@ourtlink.net

CHAIN OF CUSTODY

093004-A

PROJECT NAME: USED OILS
CONTACT: DONZELL PHONE: 313-393-2904

SAMPLE #	DATE	START TIME	STOP TIME	FLOW RATE	SAMPLE LOCATION	RI	TCLP METALS	TCLP (VOA)	TCLP (SEMI-VOA)	Total PCB	P-SERIES SCAN
8 11	9-30 04				SCHAEFER RD. WWTP-DRILL TANK	X	X	X	X	X	X
9 12	" "				HI-LO SHOP WASTE OIL TANK	X	X	X	X	X	X
10 13	" "	SEE NOTE			SCHAEFER RD. WWTP-CLARIFIER TANK NORTH	X	X	X	X	X	X
10 14	" "	SEE NOTE			SCHAEFER RD. WWTP-CLARIFIER TANK SOUTH	X	X	X	X	X	X
11 15	" "	SEE NOTE			CONTINUOUS CASTER-EAST CASTER WASTE OIL TANK	X	X	X	X	X	X
11 16	" "	SEE NOTE			CONTINUOUS CASTER-WEST CASTER WASTE OIL TANK	X	X	X	X	X	X
12 17	"				OLD CONVEYOR EXIT	X	X	X	X	X	X

REMARKS:- PAGE OF 1 OF PAGE 2

1. FAX SAMPLE RESULTS AND INVOICE TO DONZELL GREEN (313) 393-2908
2. E-MAIL SAMPLE RESULTS TO TIM CHIN@REDUCESTEEL.COM
3. Any questions call Donzell green (313)-393-2504
4. TCLP Metals must include Mercury
5. Mail report and Invoice to Donzell Green
6. See Quote for methods
7. Composite Sample # 13 & 14
8. Composite Sample #15 & 16

RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	RELINQUISHED BY (SIGNATURE)	DATE	RECEIVED BY (SIGNATURE)	TIME
[signature]	9-30 04		9/30/04 1415	[signature]			
RELINQUISHED BY (SIGNATURE)	Date	Time	Received by	RELINQUISHED BY (SIGNATURE)	DATE	RECEIVED BY (SIGNATURE)	TIME
RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	DATE	TIME	REMARKS	

SNA12/04IR
00310

SHRADER
Analytical and Consulting
LABORATORIES INC.

Report of Analytical Services

Submitted To:

ENVIRONMENTAL CHEMICAL ENTERPRISES, INC.
200 RIVERFRONT DR., SUITE 2404
DETROIT, MI 48226

Attn: MS. DONZELL GREEN

We are pleased to provide the enclosed analytical results for the following sample(s). Should you have any questions regarding the methods and/or results, please feel free to write or call.

Client project:	093004-B
Client sample:	RSC
Sample description:	USED OILS COLLECTED 09/30/04
Laboratory project:	M663
Analysis performed:	CORROSIVITY TO NACE STEEL
Date received:	30-Sep-04
Date completed:	14-Oct-04
Report date:	14-Oct-04

Verified ✓ Signature valid Laura J. Stephens
Laura J. Stephens, Environmental Manager

Approved ✓ Signature valid
Marianne L. Shrader, President

Enclosure(s)

3814 Vinewood · Detroit, Michigan 48208 · (313) 894-4440 · Fax (313) 894-4489 · www.shraderlabs.com

ENVIRONMENTAL CHEMICAL ENTERPRISES, INC.

Laboratory Project M663 006 (Continued) Thursday, October 14, 2004

Sample Number 006 *Sample ID:* SAMPLE# 8

Description: HOT STRIP MILL-SOUTH HSM OIL TANK
Date Sampled: 9/30/04 *Matrix:* Oil

Parameter	Result	Units	D.L.	Method	Start	Finish	By
Corrosivity, Nace Steel	<6.35	mm/yr	0.2	1110	10/7/04	10/8/04	GENT

Sample Number 007 *Sample ID:* SAMPLE# 10

Description: SCHAEFER RD. WWTP-SECONDARY BELT/MOP TANK
Date Sampled: 9/30/04 *Matrix:* Oil

Parameter	Result	Units	D.L.	Method	Start	Finish	By
Corrosivity, Nace Steel	<6.35	mm/yr	0.2	1110	10/7/04	10/8/04	GENT

Sample Number 008 *Sample ID:* SAMPLE# 11

Description: SCHAEFER RD. WWTP-BRILL TANK
Date Sampled: 9/30/04 *Matrix:* Oil

Parameter	Result	Units	D.L.	Method	Start	Finish	By
Corrosivity, Nace Steel	<6.35	mm/yr	0.2	1110	10/11/04	10/12/04	GENT

Sample Number 009 *Sample ID:* SAMPLE# 12

Description: HI-LO SHOP-WASTE OIL TANK
Date Sampled: 9/30/04 *Matrix:* Oil

Parameter	Result	Units	D.L.	Method	Start	Finish	By
Corrosivity, Nace Steel	<6.35	mm/yr	0.2	1110	10/11/04	10/12/04	GENT

Sample Number 010 *Sample ID:* SAMPLE# 13 & # 14 COMPOSITE

Description: SCHAEFER RD, WWTP-CLARIFIER TANK NORTH & SOUTH
Date Sampled: 9/30/04 *Matrix:* Oil

Parameter	Result	Units	D.L.	Method	Start	Finish	By
Corrosivity, Nace Steel	<6.35	mm/yr	0.2	1110	10/12/04	10/13/04	GENT

HRMCR

Environmental Chemical Enterprises, Inc.
200 Riverfront Drive Suite 2404 Detroit, MI 48226
(313) 393-2504 FAX (313) 393-2908 ECHinc@earthlink.net

CHAIN OF CUSTODY 1663

093004-B

PROJECT NAME: USED OILS
LOCATION: BSC
CONTACT: DONZELL PHONE:313-393-2504
SAMPLERS SIGNATURE: Donzell McCall

SAMPLE #	DATE	START TIME	STOP TIME	FLOW RATE	SAMPLE LOCATION	CORROSIVITY	TCLP(METALS)	TCLP (VOL.)	TCLP (SEMI-VOL.)	Total PCB	F-Series Scan
001 1	9-30-04				COLD MILL-TANDEM MILL BASEMENT PIT	X					
002 2	" "				COLD MILL-SKIN PASS	X					
3	" "				COLD MILL SKIN PASS	X					
4	" "				COLD MILL -SLITTER-	X					
003 5	" "				COLD MILL- RECOIL WELDER	X					
004 6	" "				COLD MILL MACHINE OPERATION	X					
005 7	" "				HOT STRIP MILL-NORTH HSM OIL TANK	X					
006 8	" "				HOT STRIP MILL-SOUTH HSM OIL TANK	X					
9	" "				SCHAEFER RD. WWTP-PRIMARY	X					
007 10	" "				SCHAEFER RD. WWTP-SECONDARY DELT/DOP TANK	X					

REMARKS: PAGE 1 OF 2

1. FAX SAMPLE RESULTS AND INVOICE TO DONZELL GREEN (313) 393-2908
2. E-MAIL SAMPLE RESULTS TO TIM CHEN@ROUGESTEEL.COM
3. Any questions call Donzell Green (313) 393-2504
4. Method: 1110 towards Steel
5. Composite Samples #13 & 14
6. Composite Samples #15 & 16

RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	RELINQUISHED BY (signature)	DATE	RECEIVED BY (SIGNATURE)	TIME
Donzell McCall	9-30-04				9/30		14:40
RELINQUISHED BY (SIGNATURE)	Date	Time	Received by	RELINQUISHED BY (signature)	DATE	RECEIVED BY (SIGNATURE)	TIME
RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	DATE	TIME	REMARKS	

No sample 3, 4 or 9 per Donzell Green.

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SHRADER

2 of 2

M663

093004-B

PROJECT NAME: TBEC 0423

CONTACT: DONZELL PHONE: 313-393-2904

SAMPLE #	DATE	START TIME	STOP TIME	FLOW RATE	SAMPLE LOCATION						REMARKS - PAGE OF 2 OF PAGE 2
008 11	9-30 04				SCHAEFER RD. WWTP-DRILL TANK	X					1. FAX SAMPLE RESULTS AND INVOICE TO DONZELL, GREEN (313) 393-2904
009 12	" "				HI-LO SHOP-WASTE OIL TANK	X					2. E-MAIL SAMPLE RESULTS TO TIM CHEF@ROUGHTEL.COM
010 13	" "	SEE NOTE			SCHAEFER RD. WWTP-CLARIFIER TANK-NORTH	X					3. Any questions call Donnell green (313)-393-2904
14	" "	SEE NOTE			SCHAEFER RD. WWTP-CLARIFIER TANK SOUTH	X					4. Methods: 1110 Corrosivity Towards Steel
011 15	" "	SEE NOTE			CONTINUOUS CASTER-EAST CASTER WASTE OIL TANK	X					5. Composite Samples # 13 & 14
16	"	SEE NOTE			CONTINUOUS CASTER-WEST CASTER WASTE OIL TANK	X					6. Composite Samples #15 & 16
012 17	" V				OLD CONVEYOR EXIT	X					

RELINQUISHED BY (SIGNATURE)	Time	Date/Time	RELINQUISHED BY (SIGNATURE)		DATE	RECEIVED BY (SIGNATURE)	TIME
Leslie McCook	9-30 04		John Schaefer		9/30		14:40
RELINQUISHED BY (SIGNATURE)	Time	Received by	RELINQUISHED BY (SIGNATURE)		DATE	RECEIVED BY (SIGNATURE)	TIME
RELINQUISHED BY (SIGNATURE)	Time	Date/Time	DATE	TIME	REMARKS		

SNA12/04IR
00314

Huron Valley Laboratories, Inc.

Accredited through the National Environmental Laboratory Accreditation Program (NELAP).
Accreditation Number: 100314

Analytical Report
for
Environmental Chemical Enterprises, Inc.
200 Riverfront Drive, Suite 2404
Detroit, MI 48226-4560

December 10, 2004

ECE, Inc. Project:	Severstal NA
HVLI Project:	L24893
Samples Received:	September 30, 2004
Work Request Received:	November 10, 2004

ND = Parameter not detected at or above PQL.

PQL = Practical quantitation limit - The practical limit at which quantitation can be achieved. This limit is dependent on both matrix and dilution factors and may vary from one report to another. HVLI establishes the PQL at 5 times the minimum detection limit as defined in Appendix B of 40 CFR 136.

Approved by:

Robert S. Lynch
Laboratory Manager

Mark W. Bailey
QC Review

Enclosure
ri

cc: Tim Chen

4 HARRISON ST.
LUS, MI 48174
(734) 946-4990
FAX(734) 946-4887

www.huronvalleylabs.com

200 S. COURT AVE. STE. 1
GAYLORD, MI 49735
(989) 732-5614
FAX (989) 732-7581

Huron Valley Laboratories, Inc

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Secondary Belt/Mop Tank
Sample date: 09/30/04
HVLI sample: L24893-7

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
TCLP, EXTRACT LEVEL:						
g-BHC (Lindane)	ND	mg/l		0.045	12/07/04	IMR
Heptachlor	ND	mg/l		0.039	12/07/04	IMR
Heptachlor epoxide	ND	mg/l		0.040	12/07/04	IMR
Endrin	ND	mg/l		0.052	12/07/04	IMR
Methoxychlor	ND	mg/l		0.042	12/07/04	IMR
Chlordane	ND	mg/l		0.050	12/07/04	IMR
Toxaphene	ND	mg/l		0.10	12/07/04	IMR
TCLP, EXTRACT LEVEL:						
2,4-D	ND	mg/l		0.00010	12/08/04	IMR
Silvex	ND	mg/l		0.00005	12/08/04	IMR

Huron Valley Laboratories, Inc

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Drill Tank
Sample date: 09/30/04
HVLI sample: L24893-8

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
TCLP, EXTRACT LEVEL:						
g-BHC (Lindane)	ND	mg/l		0.045	12/07/04	IMR
Heptachlor	ND	mg/l		0.039	12/07/04	IMR
Heptachlor epoxide	ND	mg/l		0.040	12/07/04	IMR
Endrin	ND	mg/l		0.052	12/07/04	IMR
Methoxychlor	ND	mg/l		0.042	12/07/04	IMR
Chlordane	ND	mg/l		0.050	12/07/04	IMR
Toxaphene	ND	mg/l		0.10	12/07/04	IMR
TCLP, EXTRACT LEVEL:						
2,4-D	ND	mg/l		0.00010	12/08/04	IMR
Silvex	ND	mg/l		0.00005	12/08/04	IMR

Huron Valley Laboratories, Inc

Analytical Results Report

Sample description: Schaefer Rd. WWTP-Clarifier Tank-North and South (composite)
Sample date: 09/30/04
HVLI sample: L24893-10

Environmental Chemical Ente
Detroit, MI 48226-4560

Parameter	Result	Units	Qual	PQL	Date	Analyst
TCLP, EXTRACT LEVEL:						
g-BHC (Lindane)	ND	mg/l		0.045	12/07/04	IMR
Heptachlor	ND	mg/l		0.039	12/07/04	IMR
Heptachlor epoxide	ND	mg/l		0.040	12/07/04	IMR
Endrin	ND	mg/l		0.052	12/07/04	IMR
Methoxychlor	ND	mg/l		0.042	12/07/04	IMR
Chlordane	ND	mg/l		0.050	12/07/04	IMR
Toxaphene	ND	mg/l		0.10	12/07/04	IMR
TCLP, EXTRACT LEVEL:						
2,4-D	ND	mg/l		0.00010	12/08/04	IMR
Silvex	ND	mg/l		0.00005	12/08/04	IMR

Huron Valley Laboratories, Inc.

PROJECT NARRATIVE
HVLI Project L24893

This report contains the analytical results for samples received from ECE , for the analysis indicated in the Chain of Custody documentation.

The compounds indicated in the report were screened for their presence using the National Bureau of Standards 98k Spectrum Library and the EPA Priority Pollutants Spectrum Library and no matches were found. The PQLs listed for these compounds are estimated values. The estimations result from established PQLs of similarly structured compounds.

All analyses were performed by USEPA approved methods and the data, except as noted in the report, met all QC acceptance criteria.

Huron Valley Laboratories, Inc. Surrogate QC Report
For Extraction Date 12/02/04

ACCURACY DATA

...mple ID	Parameter	Method	Analysis date	Analytical Value	True Value	% Recovery	LCL	UCL	Units
SMSIC120704	2-Fluorophenol	8270C	12/07/04	39.1	50.0	78.18	10.00	130.00	µg/ml
SMSIC120704	Phenol-d_5	8270C	12/07/04	41.8	50.0	83.66	10.00	130.00	µg/ml
SMSIC120704	Nitrobenzene-d_5	8270C	12/07/04	39.2	50.0	78.46	48.00	120.00	µg/ml
SMSIC120704	2-Flurobiphenyl	8270C	12/07/04	42.4	50.0	84.76	52.00	120.00	µg/ml
SMSIC120704	2,4,5-Tribromophenol	8270C	12/07/04	40.0	50.0	79.96	46.00	120.00	µg/ml
SMSIC120704	Terphenyl-d_{14}	8270C	12/07/04	48.2	50.0	96.48	33.00	127.00	µg/ml
LCS12/02/04	2-Fluorophenol	8270C	12/07/04	25.5	80.0	31.88	10.00	120.00	µg/l
LCS12/02/04	Phenol-d_5	8270C	12/07/04	32.7	80.0	40.90	10.00	120.00	µg/l
LCS12/02/04	Nitrobenzene-d_5	8270C	12/07/04	48.7	80.0	60.90	36.00	120.00	µg/l
LCS12/02/04	2-Flurobiphenyl	8270C	12/07/04	52.8	80.0	65.98	49.00	120.00	µg/l
LCS12/02/04	2,4,5-Tribromophenol	8270C	12/07/04	47.0	80.0	58.75	46.00	120.00	µg/l
LCS12/02/04	Terphenyl-d_{14}	8270C	12/07/04	69.0	80.0	86.30	39.00	120.00	µg/l
MB12/02/04	2-Fluorophenol	8270C	12/07/04	23.4	80.0	29.20	10.00	120.00	µg/l
MB12/02/04	Phenol-d_5	8270C	12/07/04	31.9	80.0	39.88	10.00	120.00	µg/l
MB12/02/04	Nitrobenzene-d_5	8270C	12/07/04	48.4	80.0	60.50	48.00	120.00	µg/l
MB12/02/04	2-Flurobiphenyl	8270C	12/07/04	53.7	80.0	67.08	52.00	120.00	µg/l
MB12/02/04	2,4,5-Tribromophenol	8270C	12/07/04	44.1	80.0	55.08	37.00	120.00	µg/l
MB12/02/04	Terphenyl-d_{14}	8270C	12/07/04	66.2	80.0	82.70	33.00	127.00	µg/l
L24893-2	2-Fluorophenol	8270C	12/07/04	107.2	400.0	26.80	10.00	120.00	µg/l
L24893-2	Phenol-d_5	8270C	12/07/04	141.0	400.0	35.25	10.00	120.00	µg/l
L24893-2	Nitrobenzene-d_5	8270C	12/07/04	245.1	400.0	61.28	48.00	120.00	µg/l
L24893-2	2-Flurobiphenyl	8270C	12/07/04	278.9	400.0	69.73	52.00	120.00	µg/l
L24893-2	2,4,5-Tribromophenol	8270C	12/07/04	231.1	400.0	57.78	37.00	120.00	µg/l
L24893-2	Terphenyl-d_{14}	8270C	12/07/04	330.3	400.0	82.58	33.00	127.00	µg/l
L24893-7	2-Fluorophenol	8270C	12/07/04	114.1	400.0	28.53	10.00	120.00	µg/l
L24893-7	Phenol-d_5	8270C	12/07/04	143.4	400.0	35.85	10.00	120.00	µg/l
L24893-7	Nitrobenzene-d_5	8270C	12/07/04	241.2	400.0	60.30	48.00	120.00	µg/l
L24893-7	2-Flurobiphenyl	8270C	12/07/04	218.8	400.0	54.70	52.00	120.00	µg/l
L24893-7	2,4,5-Tribromophenol	8270C	12/07/04	249.6	400.0	62.40	37.00	120.00	µg/l
L24893-7	Terphenyl-d_{14}	8270C	12/07/04	318.6	400.0	79.65	33.00	127.00	µg/l
L24893-8	2-Fluorophenol	8270C	12/07/04	96.5	400.0	24.13	10.00	120.00	µg/l
L24893-8	Phenol-d_5	8270C	12/07/04	131.3	400.0	32.83	10.00	120.00	µg/l
L24893-8	Nitrobenzene-d_5	8270C	12/07/04	225.8	400.0	56.45	48.00	120.00	µg/l
L24893-8	2-Flurobiphenyl	8270C	12/07/04	260.8	400.0	65.20	52.00	120.00	µg/l
L24893-8	2,4,5-Tribromophenol	8270C	12/07/04	231.3	400.0	57.83	37.00	120.00	µg/l
93-8	Terphenyl-d_{14}	8270C	12/07/04	319.1	400.0	79.78	33.00	127.00	µg/l
3-8SPA	2-Fluorophenol	8270C	12/07/04	114.7	400.0	28.68	10.00	120.00	µg/l
93-8SPA	Phenol-d_5	8270C	12/07/04	144.7	400.0	36.18	10.00	120.00	µg/l
L24893-8SPA	Nitrobenzene-d_5	8270C	12/07/04	243.5	400.0	60.88	48.00	120.00	µg/l
L24893-8SPA	2-Flurobiphenyl	8270C	12/07/04	269.2	400.0	67.30	52.00	120.00	µg/l
L24893-8SPA	2,4,5-Tribromophenol	8270C	12/07/04	260.1	400.0	65.03	37.00	120.00	µg/l
L24893-8SPA	Terphenyl-d_{14}	8270C	12/07/04	336.6	400.0	84.15	33.00	127.00	µg/l
L24893-8SPB	2-Fluorophenol	8270C	12/07/04	140.6	470.6	29.88	10.00	120.00	µg/l
L24893-8SPB	Phenol-d_5	8270C	12/07/04	181.2	470.6	38.50	10.00	120.00	µg/l
L24893-8SPB	Nitrobenzene-d_5	8270C	12/07/04	288.4	470.6	61.28	48.00	120.00	µg/l
L24893-8SPB	2-Flurobiphenyl	8270C	12/07/04	324.7	470.6	69.00	52.00	120.00	µg/l
L24893-8SPB	2,4,5-Tribromophenol	8270C	12/07/04	305.1	470.6	64.83	37.00	120.00	µg/l
L24893-8SPB	Terphenyl-d_{14}	8270C	12/07/04	398.8	470.6	84.75	33.00	127.00	µg/l
L24893-9	2-Fluorophenol	8270C	12/07/04	149.9	571.4	26.23	10.00	120.00	µg/l
L24893-9	Phenol-d_5	8270C	12/07/04	207.0	571.4	36.23	10.00	120.00	µg/l
L24893-9	Nitrobenzene-d_5	8270C	12/07/04	328.4	571.4	57.48	48.00	120.00	µg/l
L24893-9	2-Flurobiphenyl	8270C	12/07/04	318.7	571.4	55.78	52.00	120.00	µg/l
L24893-9	2,4,5-Tribromophenol	8270C	12/07/04	355.4	571.4	62.20	37.00	120.00	µg/l
L24893-9	Terphenyl-d_{14}	8270C	12/07/04	449.3	571.4	78.63	33.00	127.00	µg/l
L24893-10	2-Fluorophenol	8270C	12/07/04	126.8	400.0	31.70	10.00	120.00	µg/l
L24893-10	Phenol-d_5	8270C	12/07/04	157.0	400.0	39.25	10.00	120.00	µg/l
L24893-10	Nitrobenzene-d_5	8270C	12/07/04	233.1	400.0	58.28	48.00	120.00	µg/l
L24893-10	2-Flurobiphenyl	8270C	12/07/04	274.0	400.0	68.50	52.00	120.00	µg/l
L24893-10	2,4,5-Tribromophenol	8270C	12/07/04	245.7	400.0	61.43	37.00	120.00	µg/l
L24893-10	Terphenyl-d_{14}	8270C	12/07/04	314.2	400.0	78.55	33.00	127.00	µg/l
L24893-11	2-Fluorophenol	8270C	12/07/04	106.1	400.0	26.53	10.00	120.00	µg/l
L24893-11	Phenol-d_5	8270C	12/07/04	136.9	400.0	34.23	10.00	120.00	µg/l
L24893-11	Nitrobenzene-d_5	8270C	12/07/04	239.3	400.0	59.83	48.00	120.00	µg/l
L24893-11	2-Flurobiphenyl	8270C	12/07/04	278.1	400.0	69.53	52.00	120.00	µg/l
L24893-11	2,4,5-Tribromophenol	8270C	12/07/04	256.1	400.0	64.03	37.00	120.00	µg/l
L24893-11	Terphenyl-d_{14}	8270C	12/07/04	319.5	400.0	79.88	33.00	127.00	µg/l
L24893-12	2-Fluorophenol	8270C	12/07/04	110.0	400.0	27.50	10.00	120.00	µg/l
L24893-12	Phenol-d_5	8270C	12/07/04	138.4	400.0	34.60	10.00	120.00	µg/l
L24893-12	Nitrobenzene-d_5	8270C	12/07/04	233.0	400.0	58.25	48.00	120.00	µg/l
L24893-12	2-Flurobiphenyl	8270C	12/07/04	266.0	400.0	66.50	52.00	120.00	µg/l
L24893-12	2,4,5-Tribromophenol	8270C	12/07/04	265.9	400.0	66.48	37.00	120.00	µg/l
L24893-12	Terphenyl-d_{14}	8270C	12/07/04	319.1	400.0	79.78	33.00	127.00	µg/l
L24893-3	2-Fluorophenol	8270C	12/07/04	378.3	1000.0	37.83	10.00	120.00	µg/l

SNA12/04IR
00320

Huron Valley Laboratories, Inc. Surrogate QC Report
For Extraction Date 12/02/04

Sample ID	Parameter	Method	Analysis date	ACCURACY DATA Analytical Value	True Value	% Recovery	LCL	UCL	Units
L24893-3	Phenol-d_5	8270C	12/07/04	454.5	1000.0	45.45	10.00	120.00	µg/l
L24893-3	Nitrobenzene-d_5	8270C	12/07/04	733.0	1000.0	73.30	48.00	120.00	µg/l
L24893-3	2-Flurobiphenyl	8270C	12/07/04	847.5	1000.0	84.75	52.00	120.00	µg/l
L24893-3	2,4,5-Tribromophenol	8270C	12/07/04	784.5	1000.0	78.45	37.00	120.00	µg/l
L24893-3	Terphenyl-d_{14}	8270C	12/07/04	1009.8	1000.0	100.98	33.00	127.00	µg/l

%Recovery =100*Analytical value/True value
Acceptable %Recovery values are between the lower (LCL) and upper (UCL) control limits

Approved by IMR

SNA12/04IR
00321

Huron Valley Laboratories, Inc. QC Data
For Ex[illegible]n Date 12/02/04

Sample ID	Parameter	Method	Analysis date	Method Blank	PRECISION DATA SPA	SPB	Mean	RPD	CL %RSD	Sample Value	True Value	ACCURACY DATA Matrix spike % Rec.	LCL	UCL	Laboratory Control Sample LCS Value	True Value	% Rec.	LCL	UCL	Uni
L24893-8	alpha-BHC	8270C	12/07/04	< 9	309.1	350.4	329.7	12.5	20.0	< 47	432.4	76.2	40.0	140.0	64.5	80.0	80.6	40.0	140.0	µg/
L24893-8	beta-BHC	8270C	12/07/04	< 7	287.3	329.8	308.5	13.8	20.0	< 35	432.4	71.3	40.0	140.0	59.8	80.0	74.8	40.0	140.0	µg/
L24893-8	gamma-BHC	8270C	12/07/04	< 9	296.1	338.5	317.3	13.4	20.0	< 45	432.4	73.4	40.0	140.0	61.6	80.0	77.0	40.0	140.0	µg/
L24893-8	delta-BHC	8270C	12/07/04	< 7	347.5	408.5	378.0	16.1	20.0	< 35	432.4	87.4	40.0	140.0	68.1	80.0	85.2	40.0	140.0	µg/
L24893-8	Heptachlor	8270C	12/07/04	< 8	411.1	471.5	441.3	13.7	20.0	< 39	432.4	102.1	40.0	140.0	81.9	80.0	102.3	40.0	140.0	µg/
L24893-8	Aldrin	8270C	12/07/04	< 9	405.6	462.4	434.0	13.1	20.0	< 45	432.4	100.4	40.0	140.0	79.9	80.0	99.8	40.0	140.0	µg/
L24893-8	Heptachlor epoxide	8270C	12/07/04	< 8	289.5	328.5	309.0	12.6	20.0	< 40	432.4	71.5	40.0	140.0	67.6	80.0	84.5	40.0	140.0	µg/
L24893-8	gamma-Chlordane	8270C	12/07/04	< 10	287.1	334.9	311.0	15.4	20.0	< 50	432.4	71.9	15.0	140.0	69.2	80.0	86.5	15.0	140.0	µg/l
L24893-8	alpha-Chlordane	8270C	12/07/04	< 10	293.1	328.2	310.7	11.3	20.0	< 50	432.4	71.8	15.0	140.0	68.3	80.0	85.4	15.0	140.0	µg/l
L24893-8	Endosulfan I	8270C	12/07/04	< 9	328.6	362.7	345.7	9.9	20.0	< 44	432.4	79.9	40.0	140.0	73.0	80.0	91.3	40.0	140.0	µg/l
L24893-8	4,4' DDE	8270C	12/07/04	< 9	348.4	398.5	373.4	13.4	20.0	< 44	432.4	86.4	40.0	140.0	76.0	80.0	95.0	40.0	140.0	µg/l
L24893-8	Dieldrin	8270C	12/07/04	< 11	439.0	498.9	469.0	12.8	20.0	< 56	432.4	108.4	40.0	140.0	84.8	80.0	106.0	40.0	140.0	µg/l
L24893-8	Endrin	8270C	12/07/04	< 10	329.5	374.8	352.2	12.9	20.0	< 52	432.4	81.4	40.0	140.0	72.1	80.0	90.2	40.0	140.0	µg/l
L24893-8	Endrin aldehyde	8270C	12/07/04	< 9	374.8	471.1	422.9	* 22.8	20.0	< 45	432.4	97.8	40.0	140.0	86.5	80.0	108.2	40.0	140.0	µg/l
L24893-8	4,4'-DDD	8270C	12/07/04	< 9	383.9	436.5	410.2	12.8	20.0	< 46	432.4	94.9	40.0	140.0	78.1	80.0	97.7	40.0	140.0	µg/l
L24893-8	Endosulfan II	8270C	12/07/04	< 6	321.0	381.8	351.4	17.3	20.0	< 32	432.4	81.3	40.0	140.0	72.7	80.0	90.9	40.0	140.0	µg/l
L24893-8	4,4'-DDT	8270C	12/07/04	< 9	385.6	444.1	414.9	14.1	20.0	< 45	432.4	95.9	40.0	140.0	80.3	80.0	100.4	40.0	140.0	µg/l
L24893-8	Endosulfan sulfate	8270C	12/07/04	< 8	263.6	301.4	282.5	13.4	20.0	< 41	432.4	65.3	40.0	140.0	58.8	80.0	73.5	40.0	140.0	µg/l
L24893-8	Methoxychlor	8270C	12/07/04	< 8	408.8	469.3	439.0	13.8	20.0	< 42	432.4	101.5	40.0	140.0	87.2	80.0	109.0	40.0	140.0	µg/l
L24893-8	Endrin Ketone	8270C	12/07/04	< 10	311.0	363.2	337.1	15.5	20.0	< 50	432.4	78.0	40.0	140.0	69.6	80.0	87.1	40.0	140.0	µg/l
L24893-8	Toxaphene[5]	8270C	12/07/04	< 20						< 100										

* % Recovery and/or RPD outside control limits, chromatogram checked and integration is ok.

Methods from: US EPA and/or Standard Methods
Mean=(A+B)/2
Acceptable sample RPD values are lower than the Upper Control Limit (UCL)
Acceptable %Recovery values are between the Lower (LCL) and Upper (UCL) Limits

% Recovery=100*(Spike Value-Sample Value)/True Value
Method blank concentration based on a 500ml sample size
RPD=100*ABS(A-B)/Mean
% LCS Recovery=100*Analyzed Value/True Value

Approved by TMR

DEC07pest2

SNA12/04IR
00322

L24519

Environmental Chemical Enterprises, Inc.

[illegible] Drive Suite [illegible] Detroit, MI [illegible]
([illegible]) [illegible] FAX ([illegible]) [illegible]

CHAIN OF CUSTODY

093004-A

PROJECT NAME: USED OILS
LOCATION: [illegible]
CONTACT: DONZELL PHONE: [illegible]
SAMPLERS SIGNATURE: [signature]

SAMPLE #	DATE	START TIME	STOP TIME	FLOW RATE	SAMPLE LOCATION	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	REMARKS: PAGE 1 OF 2
1 1	9-30-04				COLD MILL-TANDEM MILL BASEMENT PIT	X	X	X	X	X	X	1. FAX SAMPLE RESULTS AND INVOICE TO DONZELL GREEN ([illegible]) [illegible]
2 2	" "				COLD MILL-SKIN PASS 1	X	X	X	X	X	X	2. E-MAIL SAMPLE RESULTS TO TIM [illegible].COM
3	" "	NO SAMPLE			COLD MILL-SKIN PASS 2	X	X	X	X	X	X	3. Any questions call Donzell Green ([illegible]) [illegible]
4	" "	NO SAMPLE			COLD MILL-SLITTER 1	X	X	X	X	X	X	4. TCLP Metals must include mercury
3 5	" "				COLD MILL-RECOIL WELDER	X	X	X	X	X	X	5. Mail Report and Invoice to Donzell Green
4 6	" "				COLD MILL MACHINE OPERATION TRENCHES	X	X	X	X	X	X	6. See Quote for methods
5 7	" "				HOT STRIP MILL-NORTH HEM OIL TANK	X	X	X	X	X	X	7. Composite samples #[illegible]
6 8	" "				HOT STRIP MILL-SOUTH HEM OIL TANK	X	X	X	X	X	X	8. Composite Samples #[illegible]
9	" "	NO SAMPLE			SOAKERS [illegible] PRIMARY SKIMMER TANK	X	X	X	X	X	X	9. Run Herb's + Pest
7 10	" "				SOAKERS [illegible] SECONDARY [illegible] TANK	X	X	X	X	X	X	On Samples all 1[illegible] Sample D. Green [illegible]

RELINQUISHED BY (SIGNATURE)	Date	Time	Date/Time	RECEIVED BY (signature)	DATE	[illegible]	TIME
[signature]	9-30-04	1410	9/30/04 1418	[signature] Rec.			
RELINQUISHED BY (SIGNATURE)	Date	Time	Received by	RELINQUISHED BY (signature)	DATE	[illegible]	TIME
RELINQUISHED BY (SIGNATURE)	Date	Time	Date/Time	DATE / TIME / REMARKS			

Rec'd request 11/10/04 Kathy [illegible]

L24893

Received Time Nov. 10. 4:34PM

SNA12/04IR
00323

L04514

Environmental Chemical Enterprises, Inc.
200 Riverfront Drive Suite 2404 Detroit, MI 48226
(313) 393-2504 FAX (313) 393-2508 ECEInc@earthlink.net

CHAIN OF CUSTODY

093004-A

PROJECT NAME: USED OILS

CONTACT: DONZELA PHONE: 313-393-2504

SAMPLE #	DATE	START TIME	STOP TIME	FLOW RATE	SAMPLE LOCATION	RI	TCLP (METALS)	TCLP (VOL)	TCLP (SEMI-VOL)	Total PCB	PCB in Used Oil	REMARKS - PAGE 01 OF 2 OF PAGE 2
8	9-30-04				SCHAEFER RD. WWTP-DRILL TANK	X	X	X	X	X	X	1. FAX SAMPLE RESULTS AND INVOICE TO DONNELL GREEN (313) 393-2508
9	" "				OLD SHOP WASTE OIL TANK	X	X	X	X	X	X	2. E-MAIL DATA & RESULTS TO TIM CHRISMON@CECEL.COM
10	" "	SEE NOTE			SCHAEFER RD. WWTP-CLARIFIER TANK SOUTH	X	X	X	X	X	X	3. Any questions call Donnell Green (313)-393
10	" "	SEE NOTE			SCHAEFER RD. WWTP-CLARIFIER TANK SOUTH	X	X	X	X	X	X	4. TCLP Metals must include Mercury
11	" "	SEE NOTE			CONTINUOUS CASTER-EAST CASTER WASTE OIL TANK	X	X	X	X	X	X	5. Mail report and Invoice to Donnell Green
11	" "	SEE NOTE			CONTINUOUS CASTER-WEST CASTER WASTE OIL TANK	X	X	X	X	X	X	6. See Note for matrix
12	"				OLD CONVEYOR PIT	X	X	X	X	X	X	7. Composite Sample #13 & 14
												8. Composite Sample #15 & 16
												9. See page #1

RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	RELINQUISHED BY (SIGNATURE)	DATE	RECEIVED BY (SIGNATURE)	TIME
[signature]	9-30-04		9/30/04 14:15	[signature]			
RELINQUISHED BY (SIGNATURE)	Date	Time	Received by	RELINQUISHED BY (SIGNATURE)	DATE	RECEIVED BY (SIGNATURE)	TIME
RELINQUISHED BY (SIGNATURE)	Date	Time	Date / Time	DATE / TIME	REMARKS		

Rec'd request 11/10/04 Rodney Brandon L24243

50858

TAIT Landscaping, L.L.C.

LANDSCAPE DESIGN/CONSTRUCTION

P.O. Box 104, Oxford, MI 48371-0104, Office 248-393-8517, Fax 248-393-1969

Invoice

Date	Invoice #
5/26/2004	1726

Bill To

Severstal N.A., Inc.
P.O. Box 1639
Dearborn, MI 48121

P.O. Number	Terms	Project
0307527	Net 45	

Description	Quantity	Rate	Amount
Insallation of fencing around primary lagoon		4,240.00	4,240.00
Installation and removal of new and old fabric around primary lagoon for environmental and wildlife control. Approximately 5400 sq.ft. of fabric		22,680.00	22,680.00

ATTENTION D Windeler 6/01/04
Please Provide Approval For:
☐ Price
☒ Service
☐ Receipt of Material
RETURN TO: Suzette/Tina
ACCOUNTS PAYABLE ROOM 2424 R.O.B. or
FAX REPLY TO 390-4536

Service received
Ken Tait
6.4.04

OK to pay D. L. Windeler 6-21-04

Please remit payment to above address.

Total	$26,920.00
Payments/Credits	$0.00
Balance Due	$26,920.00

PURCHASE ORDER

ORDER: 0307527
FAXED: 05/13/2004

DATE OF ORDER: 05/13/2004

REVISION NO: 0

TAIT LANDSCAPING
PO BOX 104
OXFORD, MI 48371

PAYMENT TERMS:
NET 45 DAYS

SUPPLIER INFO:
PHONE: (248) 393-8517
CODE: 00008416

FREIGHT:
DESTINATION PREPAID

BUYER: BARRY CARROLL
PHONE: (313) 322-9372

INVOICE TO:
SEVERSTAL NORTH AMERICA, INC.
P.O.BOX 1639
DEARBORN, MI 48121

LINE	ITEM NUMBER & DESCRIPTION	QUANTITY	UNIT	PRICE

NOTES:
THIS ORDER ISSUED TO IMPROVE THE ENVIRONMENTAL AND WILDLIFE CONTROL AT WASTE WATER TREATMENT PLAN.
THE WORK INCLUDES DISPOSAL OF THE OLD FABRIC, REPLACE WITH NEW FABRIC, AND CLEAN UP THE VEGETATION ON THE WEST SIDE OF THE LAGOON. THERE IS ONE YEAR WARRANTY ON THE JOB. REFERENCE TAIT LETTER DATED APRIL 2, 2004.

1	SL094202 SERVICE, REPLACE FENCE FABRIC AND PUT UP FENCING AROUND PRIMARY LAGOON AT SRWWTP	1	SRV	4240.0000

REQUISITION INFO:
NO: 2004-6444
REQR: LAN TRINH
PHONE: (313) 32 31260

SHIP TO:
ROB, ROUGE OFFICE BUILDING
3001 MILLER ROAD
DEARBORN, MI 48121

DELIVER TO:
L. TRINH, 2110 ROB

DATE OF DELIVERY: 05/13/2004

PURCHASE ORDER

ORDER: **0307527**
FAXED: 05/13/2004

LINE	ITEM NUMBER & DESCRIPTION	QUANTITY	UNIT	PRICE
2	SL094202 SERVICE, REPLACE FENCE FABRIC AND PUT UP FENCING AROUND PRIMARY LAGOON AT SRWWTP	1	SRV	22680.0000

REQUISITION INFO:
NO: 2004-6444
REQR: LAN TRINH
PHONE: (313) 32 31260

SHIP TO:
ROB, ROUGE OFFICE BUILDING
3001 MILLER ROAD
DEARBORN, MI 48121

DELIVER TO:
L. TRINH, 2110 ROB

DATE OF DELIVERY: 05/13/2004

TERMS AND CONDITIONS:
ALL HAZARDOUS MATERIALS DELIVERED TO SEVERSTAL NORTH AMERICA, INC. MUST HAVE THE FOLLOWING INFORMATION ON PACKAGING (BAGS, BINS, PALLETS, DRUMS, ETC.) AND ON THE PACKING SLIP OR BILL OF LADING: SEVERSTAL TOX NUMBER, MANUFACTURER NAME, PRODUCT NAME (EXACTLY AS IT APPEARS ON THE MANUFACTURER'S MSDS), AND ANY APPLICABLE DEPARTMENT OF TRANSPORTATION WARNINGS.

ALL WORK TO BE PERFORMED IN ACCORDANCE WITH SEVERSTAL NORTH AMERICA, INC TERMS AND CONDITIONS. IN THE EVENT OF ANY INCONSISTENCIES BETWEEN THE TERMS AND CONDITIONS ON THE FACE AND REVERSE SIDE HEREOF AND THE TERMS AND CONDITIONS ON ANY ATTACHMENT HERETO, INCLUDING BUT NOT LIMITED TO SELLER'S PROPOSALS AND PRICE LISTS, THE TERMS AND CONDITIONS OF THIS PURCHASE ORDER AND BUYERS ON-SITE SERVICE TERMS AND CONDITIONS SHALL PREVAIL. SELLER SHALL INDEMNIFY AND HOLD BUYER HARMLESS FROM ANY CLAIM, LOSS OR EXPENSE (INCLUDING REASONABLE LEGAL FEES) IN CONNECTION WITH DAMAGE TO PROPERTY AND PERSONAL INJURY, INCLUDING DEATH, WHICH ARISE FROM THE SERVICES PERFORMED HEREUNDER BY SELLER OR ITS EMPLOYEES, AGENTS, OR SERVANTS. INSURANCE: SELLER SHALL MAINTAIN SUCH INSURANCE AS WILL FULLY PROTECT BOTH SELLER AND BUYER FROM ANY AND ALL CLAIMS UNDER WORKER'S COMPENSATION LAWS, EMPLOYER'S LIABILITY LAWS, AND FROM ANY AND ALL OTHER CLAIMS OF WHATSOEVER KIND OR NATURE, FOR DAMAGE TO PROPERTY AND FOR PERSON INJURY INCLUDING DEATH, MADE BY ANYONE WHATSOEVER, WHICH ARISE FROM THE SERVICES PERFORMED HEREUNDER BY SELLER OR ITS EMPLOYEES, AGENTS, OR SERVANTS.

SELLER AGREES TO KEEP SUCH BOOKS AND RECORDS AS SHALL READILY DISCLOSE THE BASIS FOR ANY CHARGES, ORDINARY OR EXTRA ORDINARY, BILLED TO BUYER UNDER THIS PURCHASE ORDER AND SHALL MAKE THEM AVAILABLE FOR EXAMINATION AND AUDIT BY BUYER AND ITS AGENTS PRIOR TO, AND FOR A PERIOD OF TWO YEARS AFTER RECEIPT BY SELLER OF FINAL PAYMENT UNDER THIS PURCHASE ORDER. FOR

PURCHASE ORDER

ORDER: **0307527**
FAXED: 05/13/2004

LINE	ITEM NUMBER & DESCRIPTION	QUANTITY	UNIT	PRICE

SUCH PERIOD OF TWO YEARS, BUYER AND ITS AGENTS SHALL HAVE THE RIGHT TO AUDIT THE BOOKS AND RECORDS RELATING TO ALL SUCH CHARGES, AND SELLER, UPON REQUEST OF BUYER, SHALL MAKE THE BOOKS AND RECORDS AVAILABLE FOR SUCH EXAMINATION.

TOTAL $ 26,920.00

BUYER: BARRY CARROLL

SEVERSTAL NORTH AMERICA, INC.

TAIT Landscaping, L.L.C.
LANDSCAPE DESIGN/CONSTRUCTION
P.O. Box 104, Oxford, MI 48371-0104, Office 248-393-8517, Fax 248-393-1969

April 2, 2004

Severstal N.A., Inc.
3001 Miller Rd.
Dearborn, MI 48121-1631
Attn: Lan Trinh

Re: Cost breakdown for previous two estimates regarding installation of new fabric around the primary lagoon and the installation of fencing around the shore of the primary lagoon.

Costs for fabric estimate:

- 3' x 1800' 12oz. absorbent fabric = $3240.00
- 3000 8 gauge steel staples 1" x 8" = $420.00
- 500 8 gauge x 8" steel pins = $90.00
- Labor – includes the installation of the new fabric, removal and disposal of existing fabric, excavation of vegetation on the west side of the lagoon in area discussed with Lan, and one year warranty on the work. = $18,930.00

Total = $22,680.00

Cost for fencing estimate:

- (330) 1.5ft 5/8" steel rods with sheered end – $1155.00
- Fence material = $725.00
- Labor – includes the installation of fence as specified in estimate, and one year warrany on work. = $2360.00

Total = $4240.00

Sincerely,

Brian Tait

TAIT Landscaping, L.L.C.
LANDSCAPE DESIGN/CONSTRUCTION
P.O. Box 104. Oxford, MI 48371-0104. Office 248-393-8517. Fax 248-393-1969

Send to: Severstal N.A. Inc.	**From:** Brian Tait
Attention: **Lan Trinh**	Date: March 4, 2004
Office Location: 3001 Miller Rd Room 2110 ROB	Office Location:
Fax Number: (313) 317-1376	Phone Number: (248) 343-3910

- ☐ Urgent
- ☐ Reply ASAP
- ☐ Please comment
- ☐ Please Review
- ☐ For your information

Total pages, including cover:

Comments:

Lan – This is an estimate for the fencing. If there is any changes that need to be made, please let me know. If everything is okay with this or the fabric work, let me know when you would like to work to be done.

Thanks, Brian Tait

TAIT Landscaping, L.L.C.
LANDSCAPE DESIGN/CONSTRUCTION
P.O. Box 104, Oxford, MI 48371-0104, Office 248-393-8517, Fax 248-393-1969

Send to: Rouge Steel Company	**From:** Brian Tait
Attention: **Lan Trinh**	Date: March 2, 2004
Office Location: 3001 Miller Rd Room 2110 ROB	Office Location:
Fax Number: (313) 317-1376	Phone Number: (248)343-3910

- ☐ Urgent
- ☐ Reply ASAP
- ☐ Please comment
- ☐ Please Review
- ☐ For your Information

Total pages, including cover: 2

Comments:

Hi Lan. This is the estimate for replacing the existing fabric with new fabric. The new fabric will be a newer 12oz. fabric compared to the existing 8oz. As far as anchoring the fabric, I will use a heavier gauge steel pins along with staples in places where they can be used. Any questions, feel free to call me at (248)343-3910.

Thanks, Brian Tait

TAIT Landscaping, L.L.C.
LANDSCAPE DESIGN/CONSTRUCTION
P.O. Box 104. Oxford. MI 48371-0104. Office 248-393-8517, Fax 248-393-1969

March 2, 2004

Severstal N.A., Inc.
3001 Miller Rd.
Room 2110 ROB
Dearborn, MI 48121-1631
Attn: Lan Trinh

Re: Proposal for replacing fabric around the primary lagoon on Schaffer Rd.

The total cost for replacing the existing fabric around the shore of the primary lagoon is **$22,680.00**. This cost includes the following items and work:

- Installation of 3' x 1800' 12oz. oil absorbent fabric (increase from 8oz.)
- Secured with 8 gauge steel staples and pins
- Removal and disposal of existing fabric – includes hauling away if needed
- Excavation of vegetation on the west side of the lagoon
- One year warranty on work

This estimate is good for 30 days from the date it is issued.

Sincerely,

Brian Tait

TAIT Landscaping, L.L.C.
LANDSCAPE DESIGN/CONSTRUCTION
P.O. Box 104. Oxford. MI 48371-0104. Office 248-393-8517, Fax 248-393-1989

March 4. 2004

Severstal N.A., Inc.
3001 Miller Rd.
Room 2110 ROB
Attn: Lan Trinh

Re: Proposal for placing fencing around primary lagoon on Schaffer Rd.

The total cost for installing fencing around the perimeter of the primary lagoon on Schaffer Rd. is **$4240.00.** This cost includes the following items and work:

- Installation of approximately 1650ft. of fencing
- Fence posts to be 5/8" steel rod
- Posts to be one foot buried with approximately 8 inches above grade
- Posts to be installed approximately 5 feet from water and 5 feet between each post.
- Fencing material that is to be used is poultry fencing. The fence height is to be a maximum of 8 inches.
- One year warranty on all work

This estimate is valid for 30 days from the date it is issued.

Sincerely,

Brian Tait

SeverStal
North America, Inc.

3001 Miller Road
P.O. Box 1699
Dearborn, MI 48121

January 14, 2005

Ms. Diane M. Sharrow (DE-9J)
Wastes, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
U. S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: December 29, 2004 Notice of Noncompliance with 7003 Order

Dear Ms. Sharrow:

We are in receipt of the Notice of Noncompliance ("NON") dated December 29, 2004 regarding alleged violations of the approved Continuing Emergency Measures Workplan (CEMW), which was received by Severstal North America ("Severstal") on January 3, 2005. The NOV alleges violation of the approved CEMW at Severstal's Schaefer Road Wastewater Treatment Plant (SRWWTP). As required by the NON, we are responding within fifteen (15) days of receipt of the NOV.

The NON alleges four general types of violations. However, Severstal is concerned that the general nature of the NON makes it difficult for Severstal to respond with specificity, and Severstal requests more detail regarding the specifics of the alleged non-compliance. Nevertheless, to the extent possible, the four general types of violations are addressed below.

1) Gaps in the netting over impoundments containing oil and oily wastewater.

The SRWWTP is an NPDES permitted wastewater treatment facility. The individual units that comprise the SRWWTP include several ponds and lagoons. Wastewater treated at the SRWWTP typically contains incidental amounts of oil; the oil is removed from the wastewater by separation and skimming, and the wastewater is discharged in compliance with Severstal's NPDES permit limits for oil and grease. Accordingly, while there are wastewater treatment units, there are no oil impoundments present at the SRWWTP.

Severstal acknowledges that some portions of one of the ponds at the SRWWTP, where netting had previously been present, were no longer covered with netting at the time of the June 29, 2004 inspection. Severstal assumes that this circumstance is the "gaps" being referred to in the NON. Severstal notes that the netting of the pond has been effective, and that no wildlife was found to have been impacted by the pond during the June 29, 2004 inspection, or since that time. However, Severstal has re-covered the alleged "gaps" in the previously installed netting by stretching the netting.

There are four locations where netting had not been installed previously; Severstal is unclear whether the NON intends to refer to these circumstances as gaps in the netting. These are the two locations, one in each sludge pond, used for the delivery of material by truck. That practice has been discontinued, and Severstal will close these "gaps" and is currently evaluating the best means of covering over these areas. The third and fourth locations are openings in the netting at the ponds to allow for removal of material by the skimmer; this opening is necessary and should not be covered over, as doing so would prevent use of the skimmer.

2) Portions of netting had fallen into the oil and oily sludge

As noted above, the SRWWTP is an NPDES wastewater treatment facility. The individual units that comprise the SRWWTP include several ponds and lagoons. Wastewater treated at the SRWWTP typically contains incidental amounts of oil; the oil is removed from the wastewater by separation and skimming, and the wastewater is discharged in compliance with Severstal's NPDES permit limits for oil and grease.

Severstal's sludge ponds are covered by a grid of steel cables, which support netting stretched over the top of the grid. Severstal understands the reference to portions of the netting falling into the "oil and oily sludge" to be a reference to areas where the tension of the cables and netting had decreased, allowing sagging in the netting. Initially, Severstal notes that the netting of the pond has been effective, and that no wildlife was identified to have been impacted by the pond during the June 29, 2004 inspection, or since that time. However, Severstal has tightened the steel cables and netting, and thereby lifted up the netting. This is effective to prevent any contact between the netting and the wastewater in the pond. There is, however, one single area of the grid where some sagging of the netting is unavoidable; this occurs in the grid square of each sludge pond containing the outlet of the pipe from the clarifier, which is above the surface level of the pond. When material is pumped from the clarifier out this pipe into the sludge pond, the netting in that grid can get wet, and sags somewhat under the weight of the water. No wildlife has been observed to be attracted to that part of either pond.

3) Recoverable oil present on the surface of the impoundments.

As noted above, the SRWWTP is an NPDES wastewater treatment facility. The individual units that comprise the SRWWTP include several ponds and lagoons. Wastewater treated at the SRWWTP typically contains some incidental amount of oil. The oil is removed from the wastewater by separation and skimming in the clarifiers, and any remaining oil is removed from the ponds and lagoons through skimming. The wastewater is then discharged in compliance with Severstal's NPDES permit limits for oil and grease.

To the extent that recoverable oil collects on the surface of the NPDES permitted wastewater treatment units (which is part of their intended treatment process), that oil is regularly collected and removed from the units. Skimmers are in place on the ponds and the

lagoons to collect any recoverable oil. Vacuum truck services are also used if oil collects to a sufficient quantity, and are available to back-up the skimmers if the wind blows the oil away from the skimmers, or if the skimmers are not functioning. Any oil observed during the June 29, 2004 inspection has been removed from the ponds and lagoons in the course of operation of the NPDES permitted wastewater treatment facility.

4) Oil covered embankments around the impoundments.

Severstal assumes the reference to oil covered embankments around the impoundments is a reference to the shorelines of the Primary and Secondary lagoons. Severstal believes that referring to the shorelines as "oil covered" overstates the incidental presence of oil there, as an unavoidable incident of the functioning of these NPDES permitted wastewater treatment units. The shoreline of the Primary lagoon is covered by a protective fabric. Also, we have installed a short wire fence at the waterline of the Primary lagoon to deter wildlife from approaching the water's edge either from the bank or water surface. The shoreline of the Secondary lagoon has a steep slope that is a deterrent to wildlife. No wildlife has been observed utilizing the shoreline of the secondary lagoon, or as having been impacted by any residue of oil present on the shoreline. Accordingly, Severstal does not believe that the shorelines of those lagoons present any threat to wildlife.

Please contact me if you have any questions regarding the foregoing information, or if you can be more specific about the conditions being referred to in the NON.

Very truly yours,

D. S. Windeler, Manager
Environmental Engineering

cc: T. A. Barstow
G. W. Simpson
L. Trinh
Scott R. Dismukes, Esq.
Mark Daniels, MDEQ
John Craig, MDEQ
Agent Dan Sheill, USF&WS

SeverStal
North America, Inc.

3001 Miller Road
P.O. Box 1699
Dearborn, MI 48121

January 14, 2005

Ms. Diane M. Sharrow (DE-9J)
Wastes, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
U. S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: December 29, 2004 Notice of Violation

Dear Ms. Sharrow:

We are in receipt of the Notice of Violation ("NOV") dated December 29, 2004 regarding an alleged violation of Part 111, Section 299.9813(5), which was received by Severstal North America ("Severstal") on January 3, 2005. The NOV alleges that shipments of used oil from the former Rouge Steel Company to the Schaefer Road Wastewater Treatment Plant (SRWWTP) have not been removed from alleged pits, ponds, lagoons and impoundments at the SRWWTP. As required by the NOV, we are responding within fifteen (15) days of receipt of the NOV.

Severstal is concerned that the general nature of the NOV makes it difficult to Severstal to respond with specificity. By way of initial response, Severstal's answer to the NOV is set forth below. However, Severstal requests more detail regarding the basis and nature of EPA's allegations so that a more detail response can be provided.

By way of initial response to the NOV, Severstal answers that it is not subject to the requirements of Part 111, Rule 299.9813(5). Rule 299.9813(2)(c)(ii) specifically exempts used oil generators who separate used oil from wastewater to make the wastewater acceptable for reuse or discharge, so long as the used oil is not being sent off-site for burning. The SRWWTP is an NPDES permitted wastewater treatment plant, which treats wastewater generated at the Rouge Manufacturing Complex, including the removal of oil, for purposes of complying with NPDES permit discharge limits. The oil collected through the wastewater treatment process is sent off site for disposal or reclamation, but is not, and has not been, sent for burning as fuel. As such, the exclusion in Rule 299.9813(2)(c)(ii) applies.

Additionally, even beyond the exemption in Rule 299.9813(2)(c)(ii), Severstal does not believe that Rule 9813 has any applicability to Severstal's SRWWTP operations because Severstal is not a used oil processor. Rule 9813 applies only to used oil processors. The Michigan rules define a used oil processor as a facility that uses chemical or physical operations to produce fuel oils, lubricants or other used oil-derived products from used oil. See R 299.9106(u) and 299.9109(z). Severstal does not produce fuel oils, lubricants or other used-oil derived products. Accordingly, Severstal is a not a used oil processor, and is not subject to Rule 299.9813.

As noted, the SRWWTP is an NPDES wastewater treatment facility. While the individual units that comprise the SRWWTP include several ponds and lagoons, there are no "pits" or oil impoundments present at the SRWWTP. No shipments of used oil are delivered to any pond or lagoon at the SRWWTP; these units treat wastewater, not oil. Wastewater treated at the SRWWTP typically contains some incidental amount of oil constituents; the oil is removed during treatment of the wastewater by separation and skimming, and the wastewater is discharged in compliance with Severstal's NPDES permit limits for oil and grease.

Historically, some oily wastewater was transferred from the steel manufacturing operations to a vault in the clarifier building, for storage prior to off-site shipment. This practice has been discontinued, and is not in use now, nor was it in use at the time of the June 29, 2004 inspection. The vault was cleaned after this practice was discontinued. Since then, the vaults are only used to hold oily wastewater removed from the wastewater being treated at the SRWWTP.

In sum, while Severstal does not believe that any used oil handling or wastewater treatment practices at the SRWWTP violate R 299.9813, or any other applicable regulation, Severstal requests clarification from EPA as to the specific violation being alleged, so that Severstal can respond further, if necessary.

Very truly yours,

D. S. Windeler

D. S. Windeler, Manager
Environmental Engineering

cc: T. A. Barstow
G. W. Simpson
L. Trinh
Scott R. Dismukes, Esq.
Mark Daniels, MDEQ
John Craig, MDEQ

ECKERT SEAMANS

Eckert Seamans Cherin & Mellott, LLC
U.S. Steel Tower
600 Grant Street, 44th Floor
Pittsburgh, PA 15219

TEL 412 566 6000
FAX 412 566 6099
www.eckertseamans.com

Scott R. Dismukes
412.566.1998
sdismukes@eckertseamans.com

January 7, 2005

Ms. Diane M. Sharrow (DE-9J)
Wastes, Pesticides and Toxics Division
Enforcement and Compliance Assurance Branch
U. S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Re: December 14, 2004 Information Request to Severstal North America

Dear Ms. Sharrow:

I am writing to confirm our telephone call of this morning regarding the December 14, 2004 Information Request directed to Severstal North America ("SNA"). On behalf of SNA, we requested an extension of time to respond to the Information Request until January 31, 2005. You indicated your agreement to this request.

Thank you for your consideration in this regard.

Sincerely yours,

Scott R. Dismukes

cc: Sherry Estes, Esq.
James Cha, Esq.
D.S. Windeler

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DEC 29 2004

DE-9J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Donald S. Windeler, Manager
Environmental Engineering
SeverStal North America, Incorporated
(f.k.a. Rouge Steel Company facility)
3001 Miller Road
Post Office Box 1699
Dearborn, Michigan 48121-1699

Re: Notice of Violation
EPA I.D. No.: MID 087 738 431

Dear Mr. Windeler:

On June 29, 2004, a representative of the United States Environmental Protection Agency (U.S. EPA) inspected the SeverStal North America, Incorporated facility (SeverStal or you), specifically the Schaefer Road Wastewater Treatment Plant (SRWWTP). One of the purposes of the inspection was to evaluate SeverStal's compliance with the requirements of the Resource Conservation and Recovery Act (RCRA), specifically the Hazardous Waste Management Program Administrative Rules Promulgated Pursuant to Part 111 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, as set forth at Michigan Administrative Code (MAC) R 299.9101 *et. seq.* and Title 40 of Code of Federal Regulations (40 CFR), Part 279.

Based on the U.S. EPA's RCRA inspection that included personal observations and information provided by you, U.S. EPA finds that SeverStal is in violation of the requirements of Part 111, Section 299.9813(5) in that all storage, treatment and reclamation of used oil at the SRWWTP is not in containers or tanks. At the time of the inspection it was observed and recorded that shipments of transported used oil from the former Rouge Steel Company to the SRWWTP had not been removed by SeverStal from the pits, ponds, lagoons and impoundments at the SRWWTP.

Under Section 3008(a) of the RCRA, 42 U.S.C. § 6928(a), U.S. EPA may issue an order assessing a civil penalty for any past or current violation and requiring compliance immediately or within a specified time period. Although this letter is not such an order, we request that you submit a response in writing to this office no later than fifteen (15) days after receipt of this letter documenting the actions, if any, which have been taken since the inspection to establish compliance with the above requirement.

You should submit your response to Diane Sharrow, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, DE-9J, Chicago, Illinois 60604.

If you have any questions regarding this letter, please contact Ms. Sharrow, of my staff, at (312) 886-6199.

Sincerely,

Lorna M. Jereza, P.E., Chief
Compliance Section 1
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division

Enclosure

cc: Mark Daniels, Michigan DEQ
John Craig, Michigan DEQ

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DEC 29 2004

DE-9J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Donald S. Windeler, Manager
Environmental Engineering
SeverStal North America, Incorporated
(f.k.a. Rouge Steel Company facility)
3001 Miller Road
Post Office Box 1699
Dearborn, Michigan 48121-1699

Re: Docket No. R7003-5-00-110
Noncompliance with 7003 Order
EPA I.D. No.: MID 087 738 431

Dear Mr. Windeler:

On June 29, 2004, a representative of the United States Environmental Protection Agency (U.S. EPA) inspected the SeverStal North America, Incorporated facility (SeverStal or you), specifically the Schaefer Road Wastewater Treatment Plant (SRWWTP) formerly owned/operated by Rouge Steel Company. One of the purposes of the inspection was to evaluate SeverStal's compliance with the requirements of the RCRA 7003 Order issued to Rouge Steel Company (Docket No. R7003-5-00-110), which is binding on SeverStal in accordance with the Order authorizing the sale of Rouge Industries' assets. *See* December 30, 2003, "Order Authorizing (I) Sale of Substantially All of the Assets of the Debtors Free and Clear of Liens, Claims and Encumbrances, (II) Assumption and Assignment of Certain Executory Contracts and Unexpired Leases, (III) Assumption of Certain Liabilities and (IV) Procedures for the Rejection of Certain Executory Contracts and Leases (D.I. 98)," United States Bankruptcy Court, District of Delaware, Chapter 11, Case No. 03-13272 (MWF), specifically, paragraph 40.

Based on the U.S. EPA's RCRA 7003 inspection that included personal observations, photographs and information provided by you, U.S. EPA finds that SeverStal is in violation of the 7003

Order and the Continuing Emergency Measures (CEM) Workplan submitted in response to the 7003 Order. Specifically, during the June 29, 2004, inspection, the U.S. EPA inspector observed gaps in the netting placed over the impoundments containing oil and oily wastewater, portions of netting that had fallen into the oil and oily sludge, recoverable oil on the surface of the impoundments, and oil covered embankments around the impoundments.

Under Section XIV of the 7003 Order, U.S. EPA may seek civil penalties of up to $5,500 per day for noncompliance. Although this letter is not such a demand, we request that you submit a response in writing to this office no later than fifteen (15) days after receipt of this letter documenting the actions, if any, which have been taken since the inspection to establish compliance with the 7003 Order and the CEM Workplan.

You should submit your response to Diane Sharrow, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, DE-9J, Chicago, Illinois 60604.

If you have any questions regarding this letter, please contact Ms. Sharrow, of my staff, at (312) 886-6199. Communications made by legal counsel representing SeverStal should be directed to James J. Cha, Associate Regional Counsel, at (312) 886-0813.

Sincerely,

Lorna M. Jereza, P.E., Chief
Compliance Section 1
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division

Enclosure

cc: Mark Daniels, Michigan DEQ
John Craig, Michigan DEQ
Agent Dan Shiel, United States Fish and Wildlife Service

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DEC 14 2004

DE-9J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IN THE MATTER OF:

SeverStal North America, Inc. facility
(f.k.a. Rouge Steel Company facility)
3001 Miller Road
Post Office Box 1699
Dearborn, Michigan 48121-1699

ATTENTION: Donald S. Windeler, Manager
Environmental Engineering

REQUEST FOR INFORMATION

By this letter, the United States Environmental Protection Agency (U.S. EPA) requests information under Section 3007 of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. § 6927. Section 3007 authorizes the Administrator of U.S. EPA to require you to submit certain information.

This request requires SeverStal North America, Inc. (SeverStal or you), to submit certain information relating to work performed with respect to the former "Rouge Complex", and the Schaefer Road Wastewater Treatment Plant (SRWWTP), located in Dearborn, Michigan (the facility). We are requiring this information for purposes of enforcing Section 7003 of RCRA and to determine the facility's status under Section 3014 of RCRA and its implementing regulations. Attachment 1 specifies the information you must submit. You must submit this information within 21 calendar days of receiving this request to the United States Environmental Protection Agency, Attention: Diane Sharrow, 77 West Jackson Boulevard, DE-9J, Chicago, Illinois 60604.

You may, under 40 CFR Part 2 Subpart B, assert a business confidentiality claim covering all or part of the information in the manner described in 40 CFR 2.203(b). We will disclose the information covered by a business confidentiality claim only to the extent and by means of the procedures at 40 CFR Part 2, Subpart B. You must make any request for confidentiality when you submit the information since any information not so identified may be made available to the public without further notice.

SeverStal must submit all requested information under an authorized signature certifying that the information is true and complete to the best of the signatory's knowledge and belief. Should the signatory find, at any time after submitting the requested information, that any portion of the submitted information is false, misleading or incomplete, the signatory should notify us. Knowingly providing false information in response to this request may be actionable under 18 U.S.C. §§ 1001 and 1341. We may use the requested information in an administrative, civil or criminal action.

This request is not subject to the Paperwork Reduction Act, U.S.C. § 3501 et seq., because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation.

Failure to comply fully with this request for information may subject SeverStal to an enforcement action under Section 3008 of RCRA, 42 U.S.C. § 6928.

You should direct questions about this request for information to Diane Sharrow, of my staff, at (312) 886-6199.

12/10/04
Date

Lorna M. Jereza, P.E., Chief
Enforcement and Compliance Assurance Branch
Compliance Section 1

Attachment

cc: Mark Daniels, MDEQ
John Craig, MDEQ

ATTACHMENT I

Instructions: You must respond separately to each of the questions or requests in this attachment. Precede each answer with the number of the Request for Information to which it corresponds. For each document produced in response to this Request for Information, indicate on the document, or in some other reasonable manner, the number of the question to which it responds.

Requests

1. Identify all persons consulted in preparing the answers to this Request for Information. Provide the full name and title for each person identified, as well as the business address and telephone number of each such person.

2. Provide true, accurate and complete copies of all documents pertaining to any oil, oily water or oily materials that SeverStal has removed from any of the impoundments, pits, ponds or lagoons located at the Schaeffer Road Wastewater Treatment Plant (SRWWTP), between the time of SeverStal's purchase of the Rouge Steel facility and the present date, inclusive. Documents responsive to this request should include, but not be limited to, all contracts or other written agreements; all purchase orders for materials handled; all documents that describe or identify any of the contents or constituents of each material handled; all documents that identify the source of each material handled; and all documents that identify the amount of each material handled.

3. Identify all contractors and/or consultants who provided services for SeverStal with respect to the SRWWTP for the period of time between SeverStal's purchase of the Rouge Steel facility and the present date, inclusive. Provide the names of all contact persons, as well as the business address and telephone number of each such person.

4. Describe in detail each service provided to SeverStal by contractors or consultants at the SRWWTP for the period between the time of Severstal's purchase of the Rouge Steel facility and the present date, inclusive. Your response should include, but not be limited to, detailed descriptions of all vacuum services, trucking services, liquid hauling services, water blasting services, pipeline inspection services (including photographing or videotaping), and hydro-excavation services.

5. Provide any or all U.S. EPA identification numbers or names that contractors may have used while providing services to SeverStal, and identify any subsidiaries or operating divisions that may have performed services for SeverStal.

6. Provide true, accurate and complete copies of all documents, data, photographs and videotapes in your possession that relate to each service performed for SeverStal, as described in response to Requests No. 4 and 5, above.

7. Identify each occasion that SeverStal has excavated or otherwise removed any liquid or solid materials from any pit, pond or lagoon at the SRWWTP; identify the employees involved in each such excavation or removal activity; provide the date(s) of each such excavation or removal activity; identify whether such excavation or removal work was performed for or on behalf of SeverStal; describe how the excavated or removed material was handled; describe the ultimate fate of each removed or excavated material; and provide true, accurate and complete copies of all documents relating to each such excavation or removal activity (including but not limited to all documents identifying the sources and constituents of each material excavated or removed, and all manifests and analytical reports relating to such material).

8. Describe in detail each occasion that SeverStal deposited any oil, oily water or oily material into any impoundment, pit, pond or lagoon at the SRWWTP. Identify the source(s) of each such material; identify the location(s) where each such material was found; and describe how each material was handled. Provide all documents that relate to the source(s), origin(s), location(s), amount, contents and constituents of each such material.

9. Describe in detail how SeverStal removed and handled oil, oily-water or oily materials at the SRWWTP. Describe in detail each aspect of the labor involved, and the cost of each type of labor. Provide true, accurate and complete copies of all documents that contain any information responsive to this Request.

10. Provide the following certification by a responsible corporate officer:

I certify under the penalty of law that I have examined and am familiar with the information submitted in responding to this information request for production of documents. Based on my review of all relevant documents and inquiring of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

INSPECTION NOTES 06-29-04

SeverStal 06-29-04:

Upon arrival approximately 8:00 am I went to SeverStal (Rouge Steel) Security Office on Miller Road. I presented credentials to Security Guard who called Don Windeler, Environmental Manager. Don met me at the gate to SRWWTP, where I presented my credentials. I informed Don I wished to inspect SRWWTP for compliance with RCRA 7003 Order and then site visit Cold Mill, J-9 and Caster; three locations that were inspected in October 2002 prior to bankruptcy.

I asked Don specifically whether any shipments by truck had been made to SRWWTP east and west sludge ponds in 2004. He said "no". He said that trucks had been hauling "lime paste" to the diked lagoon only. Don stated that the last removal of material from the primary lagoon was August or September 2003, and prior to that 2001. Don stated that the last time material had been removed from the west sludge pond and the diked lagoon was 2001. He said the east sludge pond had been "inactive" for the last year and a half.

I asked Don who SeverStal was using for vacuuming and other contractor services at the SRWWTP. Don said that SeverStal had stopped using Doetsch as a contractor for these services over a billing dispute related to the bankruptcy, but was using VacAll on MWF's.
Don stated that SeverStal had a purchase order with Vac All that used a manual system of tickets which were in turn computerized into SeverStal's system called EMPAC.

I asked Don whether SeverStal was tracking the use of oil at the Plant. Don stated that the Tandem Mill is the only one that may be tracking usage. I asked about where SeverStal was sending their oil waste. Don said they had been using US Liquids, but was now using EQ, who was spot checking loads.

Don sated that SeverStal was looking at changes in the TM and new pickle line equipment. He said Edgebrook still takes the pickle liquor for reuse.

Don said DEQ and EPA were at SeverStal May 20th and 22nd looking at the NPDES discharge and Rouge River after an oil sheen was found on the River.

I asked about the netting at SRWWTP, since there were gaps, holes, tears and it was not taut and lying in the surface water/oil sheen on both the east and west sludge ponds and the primary lagoon. Don said that the contract for netting had to be renegotiated since SeverStal's purchase since the Contractor may not have been paid by Rouge Steel before bankruptcy.

Don then had Lan Trinh, an engineer with SeverStal, accompany on my walk around the remainder of the SRRWTP. I presented my enforcement credentials to Ms. Trinh.

I observed that the East Sludge Pond contained less liquid material then the west sludge pond. There were several significant holes or gaps in the low-lying netting on the both the east and west sludge ponds and oily material on the banks and on the surface.

I observed that all three propane cannons were firing at SRWWTP, and that there was mylar ribbon tied to the fences on the west side and at the primary lagoon.

I also observed oiled embankments and oil globules and sheens on the secondary lagoon, and oil sheen on the diked lagoon.

Lunch with Ms. Trinh approximately 11:30 to 12:30 at the Ford/SeverStal employee cafeteria.

At approximately 12:30 we reconvened. Don Windeler explained that SeverStal had a contractor on board to assist with environmental and cost-saving programs. They gave me a copy of a "Sammy Slab" used oil diagram (see attached).

In my visit of the SeverStal steel plant, I attempted to revisit several locations that I had inspected in October 2002, to confirm whether conditions were the same. I was accompanied by Don and Lan.

At the Cold Mill I asked Don about scheduled versus unscheduled oil changes / additions on equipment. Don explained that there were charts that were recorded by staff of additional and that EMAPCT handles both scheduled and unscheduled work orders and requests, but not those on the hydraulic systems. He stated work orders were generated each day for each shift. Don further stated that hydraulic oil replacement was almost always due to a seal going bad or a hose leak, and that it was to SeverStal's benefit not to have losses of oil because it affects product quality, damage to equipment and ultimately profitability; e.g. TOP or Total Operating Performance.

I observed that there was almost no oil in several of the areas we had inspected in October 2002 and conditions were much improved (see photographs from October 2002).

Diane Sharrow


SeverStal
North America, Inc.
Sid Haymour
Maintenance Manager
Cold Mill
3001 Miller Road, P.O. Box 1699, Dearborn, MI 48121-1699
Phone: 313.317.8999 Fax: 313.317.8843
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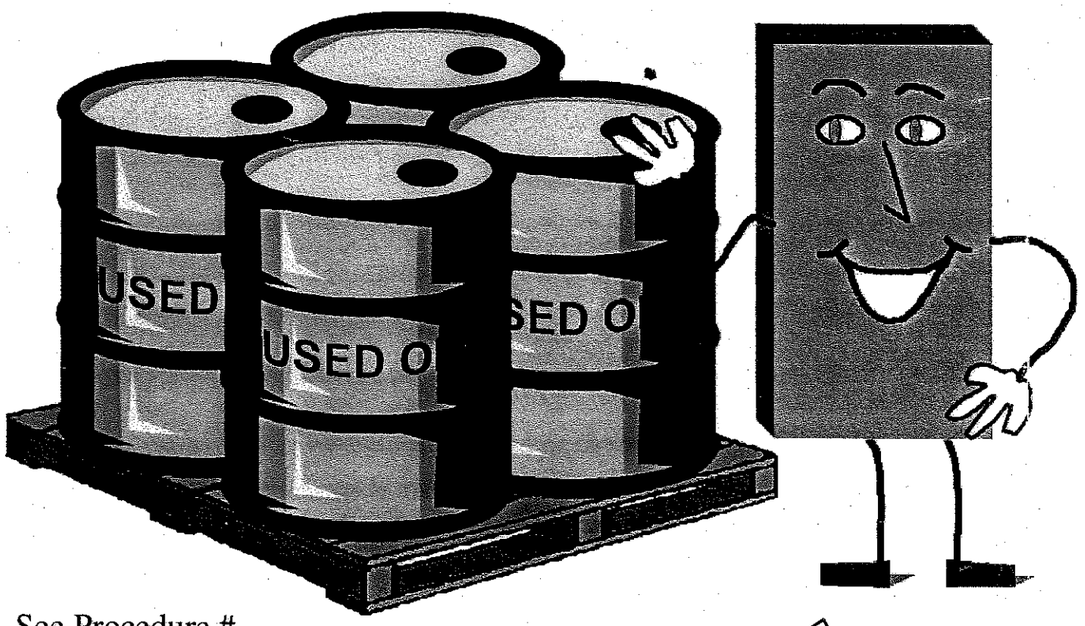
SeverStal
North America, Inc.
ENVIRONMENT & QUALITY
TOGETHER – MAKE A DIFFERENCE
• Reduce Waste
• Meet Government Regulations
• Continual Environmental Improvement
ISO 14001

Recd 6-29-4
from SeverStal

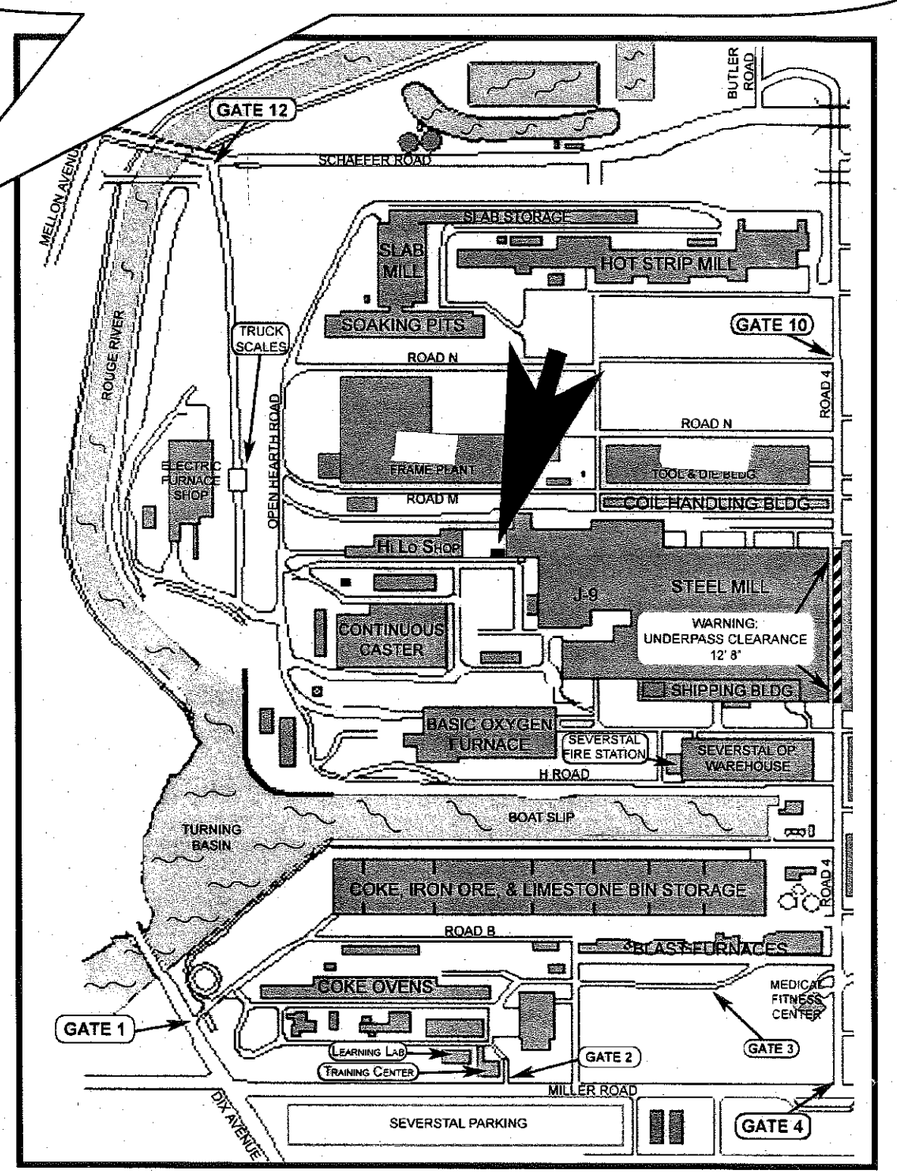
USED OIL

SAMMY SLAB SAYS
"Transport all full used oil drums to the Used Drum Storage Pad."



See Procedure #
PT-G-1-40-09

"This map shows the location of the **USED DRUM STORAGE PAD.**"



"Contact the Environmental Engineering office
(, with any questions."

ECKERT SEAMANS CHERIN & MELLOTT, LLC

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Morgantown, WV

Philadelphia

Pittsburgh

uthpointe, PA

Washington, D.C.

Wilmington, DE

January 20, 2004

Via Certified Mail
Return Receipt Requested

Ms. Diane M. Sharrow (DE-9J)
U. S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Re: Rouge Steel Company: U.S. EPA Information Request Pursuant to Section 3007 of RCRA Dated December 15, 2003

Dear Ms. Sharrow:

In accordance with our telephone conversation of January 14, 2004, we are writing regarding Request No. 3 of U.S. EPA's December 15, 2003 Request for Information to Rouge Steel Company ("Rouge"). Request No. 3 calls for production of maintenance logs and maintenance records for equipment that uses hydraulic oils, for all records since 1999. As we discussed, the number of responsive documents maintained by Rouge is very large, the documents are located in numerous locations at Rouge, and are contained in files that also include maintenance records for non-hydraulic oil equipment.

In order to prevent the unnecessary production of large amounts of documents, we agreed that Rouge would provide the following as an interim response for Request No. 3:

a. Sample pages of a computer database listing of work order that pertain to maintenance on equipment that uses hydraulic oils (RSC1203IR#3 – 0001 to 0005).

b. Samples of recent work orders from the cold mill (RSC1203IR#3 – 0006 to 0013), caster (RSC1203IR#3 – 0014 to 0020) and hot strip mill (RSC1203IR#3 – 0021 to 0027).

In accordance with this approach, copies of the requested sample pages and sample work orders are enclosed. Once you have had an opportunity to review these materials, please contact me to schedule a conference call to discuss revisions to the nature, extent and timing of a response to Request No. 3.

It is our understanding that until EPA evaluates the enclosed and determines what scope of response it is seeking to Request No. 3, that no further document production will be required in response to Request No. 3.

Very truly yours,

Scott R. Dismukes

Scott R. Dismukes
412.566.1998
scott.dismukes@escm.com

WORK_ORDER_NO	WO_DESC	USER_CODE	ASSET_NAME
03-097097-000	1PL WELDER, REPAIR LEAK AT SOUTH HYDRAULIC PUMP	09HY	090035, 1PL WELDER
03-097098-000	1PL WELDER, REPAIR LEAK AT SOUTH HYDRAULIC PUMP FILTER	09HY	090035, 1PL WELDER
03-097099-000	1PL WELDER, REPAIR HYDRAULIC LEAK BEHIND WELDER.	09HY	090035, 1PL WELDER
03-097100-000	3PL ENTRY VALVE STAND, REPAIR HYDRAULIC LEAK AT # 4 PUMP.	09HY	090335, 3PL WELDER
03-097101-000	3PL ENTRY VALVE STAND, REPAIR HYD. LEAK ON DOWNENDER CYL. LINE.	09HY	090465, 3PL HYDRAULIC SYSTEM
03-097115-000	F6 BACK-UP ROLL PIT, REMOVE AND REPLACE BAD HYDRAULIC PIPING.	08HY	086330, HYDRAULIC SYSTEM, T
03-097130-000	E1 EDGER INSPECT ROLL CYLINDERS FOR BLOW-BY OR LEAKES REPLACE OR REPAIR AS NEEDED.	08HY	082100, EDGER, E1
03-097135-000	R2 WORK ROLL SLED CHANGE HYDRAULIC VALVE	08HY	086320, HYDRAULIC SYSTEM, S
03-097222-000	1SP CHANGE BACKUPS	09HY	092440, 1SP BACK UP ROLLS
03-097240-000	E1 EDGER SERVICE ROLL CHANGE.	08HY	082100, EDGER, E1
03-097253-000	UPENDER 3 SERVICE REPAIRS	08HY	084330, UPENDER 3
03-097257-000	STRAND 1-2-3 CHECK HYDRAULIC OIL LEVELS AND GREASE BARRELS	06HY	061340, HYDRAULIC SYSTEM 2
03-097282-000	FURNACE 1 W/B TRAVERSE CYLINDER SOUTH.	08HY	080180, HYD SYSTEM, 1 FCE W/BE
03-097283-000	FURNACE 3 W/B LIFT CYLINDER NORTH.	08HY	080380, HYD SYSTEM, 3 FCE W/BE
03-097355-000	R2 ROLL SLED CONTINUE FABRICATING PIPING	08HY	082250, MILL, R2
03-097673-000	TANDEM MILL CHANGE 4 STAND BACKUPS AND GREASE SLEDS	09HY	090989, 2TM BACKUPS
03-097674-000	TANDEM MILL 3 STAND BACKUPS, CHANGE ROLLS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-097752-000	TANDEM MILL 2 STAND CHANGE BACKUPS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-098227-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098228-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098229-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098230-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098231-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098232-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098233-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098234-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098235-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098236-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098237-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098238-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098239-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098240-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098241-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098242-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098243-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098244-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098245-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098246-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098247-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098248-000	TANDEM MILL ROLL BALANCE LEAK INSPECTION	09HY	091002, 2TM ROLL BALANCE HYD
03-098249-000	4PL WELD INSP & REPAIR LISTED CYL. CHECK & TIGHTEN ALL BOLTS.	09HY	090640, 4PL WELDER
03-098250-000	3PL WELD INSP & REPAIR LISTED CYL. & TIGHTEN ALL BOLTS.	09HY	090335, 3PL WELDER
03-098251-000	3PL WELDER CHANGEOUT HYDRAULIC FILTERS ON PLATEN	09HY	090335, 3PL WELDER
03-098252-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098254-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098255-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098256-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098257-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098258-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098259-000	3PL WELDER HYDRAULIC LEAK INSPECTION INCLUDES FLASHTRIMMER	09HY	090335, 3PL WELDER
03-098260-000	1SP BACKUP CHOCK HYDRAULIC SPARE PART INVENTORY	09HY	092441, 1SP B/UP CHOCK
03-098261-000	1PL ENTRY HYDRAULIC PUMPS AND VALVE STAND INSPECTION	09HY	090160, 1PL HYDRAULIC SYSTEM
03-098263-000	1SP HYDRAULIC CYLINDER AND VALVE STAND INSPECTION	09HY	092500, 1SP HYDRAULIC SYSTEM
03-098264-000	1PL ENTRY HYDRAULIC PUMP AND FILTER INSPECTION 1,2,3 AND 4 PUMP	09HY	090160, 1PL HYDRAULIC SYSTEM
03-098265-000	3PL WELDER HYDRAULIC SYSTEM INSPECTION	09HY	090335, 3PL WELDER
03-098266-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098267-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098268-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT

WORK_ORDER_NO	WO_DESC	USER_CODE	ASSET_NAME
03-100171-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100172-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100173-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100174-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100175-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100176-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100177-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100178-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100179-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100180-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100181-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100182-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100183-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100184-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100185-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100186-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100187-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100188-000	4PL UNCOILER MANDREL POWER TRACK MOUNTING - TIGHTEN BOLTS	09HY	090621, 4PL UNCOILER MANDREL
03-100189-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100190-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100191-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100193-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100194-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100195-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100196-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100197-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100198-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100199-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100200-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100201-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100202-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100203-000	TANDEM MILL AUX & ROLL BALANCE HYD PUMP STRAINER INSPECTION AND CLEANING	09HY	091000, 2TM HYDRAULIC SYSTEM
03-100204-000	TANDEM MILL ROLL FORCE HYDRAULIC SYSTEM CHANGE ALL HYDRAULIC FILTERS	09HY	091040, 2TM ROLL FORCE SYS
03-100205-000	4PL HYDRAULIC CYLINDER INSPECTION FROM ENTRY MANDREL TO TEMPER MILLS	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-100206-000	1PL INSP HYD HOSES ON THE UNCOILER	09HY	090020, 1PL UNCOILER
03-100207-000	4PL ASKAINIA HYDRAULIC FILTER CHANGE/CLEAN	09HY	090800, 4PL ASKANIA
03-100208-000	TANDEM MILL BACKUPS SPARE PARTS INVENTORY #3 SHIFT MONDAY	09HY	090989, 2TM BACKUPS
03-100209-000	4PL ENTRY AND WELDER HYDRAULIC PUMP AND VALVE STAND INSPECTION	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-100210-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100211-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100212-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100213-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100214-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100215-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100216-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100702-000	FINISH MILL RAIL LIFT HYDRAULIC CYLINDER INSPECTION	08HY	083000, FINISH MILL
03-100703-000	LAMINAR SPRAY HYD SYSTEM CHANGE RETURN LINE FILTER ELEMENTS. CLEAN SUCTION LINE STRAINER ON PUMP A-B-C	08HY	086360, HYD SYSTEM, LAMINAR SP
03-100730-000	ROUGHING MILL ROLL BALANCE HYDRAULIC SYSTEM (S) INSPECTION	08HY	086320, HYDRAULIC SYSTEM, S
03-100742-000	KERRY ACTUATOR 5, INSPECT OIL LEVEL ON HEAT RETENTION HOOD.	08HY	081555, 5 COVER, DELAY TABLE
03-100743-000	KERRY ACTUATOR 4, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081545, 4 COVER, DELAY TABLE
03-100744-000	KERRY ACTUATOR 0, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081505, 0 COVER, DELAY TABLE
03-100745-000	KERRY ACTUATOR 3, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081535, 3 COVER, DELAY TABLE
03-100746-000	KERRY ACTUATOR 2, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081525, 2 COVER, DELAY TABLE
03-100747-000	KERRY ACTUATOR 1, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081515, 1 COVER, DELAY TABLE

WORK_ORDER_NO	WO_DESC	USER_CODE	ASSET_NAME
03-102252-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102253-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102254-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102255-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102258-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102259-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102260-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102261-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102264-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102265-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102266-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102267-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102268-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102271-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102273-000	TANDEM MILL AUX & ROLL BALANCE HYD PUMP STRAINER INSPECTION AND CLEANING	09HY	091000, 2TM HYDRAULIC SYSTEM
03-102274-000	3PL INSP HYD HOSES ON THE UNC.	09HY	090320, 3PL UNCOILER
03-102275-000	RW PUMP FILTERS AND STRAINER INSPECTIONS	09HY	093090, RW HYDRAULIC SYSTEM
03-102276-000	4PL HYDRAULIC CYLINDER INSPECTION FROM DOWNENDER TO COIL PEELER RUNTURN	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-102277-000	4PL HYDRAULIC CYLINDER INSPECTION - STRIP STEERING/SO.UPCOILER LIFT	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-102278-000	3PL WELDER HYDRAULIC LEAK INSPECTION INCLUDES FLASHTRIMMER	09HY	090335, 3PL WELDER
03-102764-000	INVENTORY FINISH MILL HYDRAULIC ROLL BALANCE PARTS	08HY	083000, FINISH MILL
03-102800-000	FINISH MILL RAIL LIFT HYDRAULIC CYLINDER INSPECTION	08HY	083000, FINISH MILL
03-102887-000	INVENTORY ROUGHING MILL HYDRAULIC ROLL BALANCE PARTS	08HY	082000, ROUGHING MILL
03-102889-000	WEEKLY INVENTORY OF HYDRAULIC VALVES	08HY	086330, HYDRAULIC SYSTEM, T
03-102909-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102910-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102911-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102912-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102913-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102914-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102915-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102987-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102988-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102989-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102990-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102991-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102992-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102993-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103017-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103018-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103019-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103020-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103021-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103022-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103023-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103026-000	ROUGHING MILL BACKUP ROLL CHANGE HYDRAULIC PUMP SELECTION	08HY	086320, HYDRAULIC SYSTEM, S
03-103027-000	INVENTORY HYDRAULIC HOSES ASSEMBLED	08HY	086300, HYDRAULIC SYSTEMS
03-103028-000	INVENTORY FINISH MILL BACK UP CHOCK ROLL BALANCE CYLINDER PARTS	08HY	082660, CHOCKS, BACK UP F1/F7
03-103030-000	INVENTORY HYDRAULIC FILTER ELEMENTS	08HY	086300, HYDRAULIC SYSTEMS
03-103321-000	TANDEM MILL 3 STAND BACKUPS, CHANGE ROLLS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-103377-000	1 S/P CHANGE B/U'S	09HY	092440, 1SP BACK UP ROLLS
03-103421-000	4 P/L ENTRY, REPAIR HYDRAULIC LEAK ON PRESSURE HEADER.	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-103445-000	4 P/L ENTRY NORTH COIL CAR LIFT GATE VALVE, REPAIR PACKING LEAK.	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-104226-000	TANDEM MILL ROLL BALANCE LEAK INSPECTION	09HY	091002, 2TM ROLL BALANCE HYD
03-104227-000	1PL WELD CHANGE FILTERS ON PLATEN &THE MAIN HYD SYSTEMS	09HY	090035, 1PL WELDER
03-104228-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN

11 Dec 2003 17:16:29 *** Inspection Work Order *** WO No: 03-100206-000 (R) Page

inator : REPORT, ADMIN
ester : SPEARS, MARY
Planner : SPEARS, MARY
Reference :
GL Code Combo : 056570.0000003651.RSCON

Start Date: 2003/12/14
Shutdown : YES
Parts Reqd: No
Area Code : 091PL

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 2003/12/13
Late Date :

Text ID: Insp 0000000090020*920

Description: 1PL INSP HYD HOSES ON THE UNCOILER

Asset : 090020, 1PL UNCOILER Revision No: 0
Asset/Cat : 000000000090020 HYD UNCOILER, COIL
Location :

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1	09M2	09HY	2003/12/14	2	8.00

FACILITY : COLD MILL *** JOB #7564 *** 090015L ***
TITLE : PROCEDURE (SAFETY LOCKOUT):#1 P/L SOUTH ENTRY SECTION
APPLICATION: #1 PICKLE LINE, COILCAR TRAVERSE/HOIST/TILT ROLL,ALL TRADE
AUTHOR : DAVE JOHNSON
EQUIPMENT #: 090015
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WHERE:

1. LOCATED IN THE #1 P/L SOUTH ENTRY CONTROL ROOM (A) AT COLUMN J-32 EAST FLOOR LEVEL.
2. THE HYDRAULIC PUMPS ARE LOCATED SOUTH OF CONTROL ROOM AT J-28, J-29 EAST.

NEEDS:

1. AN ELECTRICIAN.
2. ONE HYDRAULIC PERSON.
3. SEVEN SAFETY LOCKS. (FOR COMPLETE LOCKOUT OF ENTRY HYDRAULIC SYSTEM).

HOW:

1. (NOTE: SWITCH ON UNCOILER OPERATORS BENCH BOARD IDENTIFIED AS "HYDRAULIC PUMPS", ONLY SHUTS OFF STARTERS FOR PUMPS.
1. THE HYDRAULIC PERSON CAN ISOLATE EACH VALVE AT THE HYDRAULIC PUMP STAND IF NEEDED.
2. SHUT OFF EACH BREAKER IN CONTROL ROOM AND APPLY SAFETY LOCKS.

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 4316 Signature: [signature] Date: 12-14-03 Reconciliation: ___ Failure
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

11 Dec 2003 15:59:25 *** Routine Work Order *** WO No: 03-099326-000 (R) Page 1

ginator : SPEARS, MARY	Start Date: 2003/12/13	Action Code: PART REPLACEMENT
uester : MARY SPEARS	Shutdown : YES	Priority : 4
anner : SPEARS, MARY	Parts Reqd: No	Project No :
Reference :	Area Code : 093PL	Date Reqrd :
GL Code Combo : 056640.0000003653.RSC01		Late Date :

Description: 3PL WELDER CHANGE 2 AND 3 HYDRAULIC ACCUMULATORS

O.K.

Asset : 090335, 3PL WELDER Revision No: 0
Asset/Cat : 000000000090335 HYD WELDER, PROCESS
Location :

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1	09M2	09HY	2003/12/13	2	10.00

3 P/L WELDER, CHANGEOUT #2 AND #3 HYDRAULIC ACCUMULATORS. ONE HAS A BAD SCHRADER VALVE AND THE OTHER WON'T HOLD A CHARGE. CHARGE EACH ACCUMULATOR TO 500 PSI.

-- RECORD TIME DAILY --

e	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
14/03	0399		[ ]				[ ]				[ ]
12/13	6689		[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

Keyser

* * * End of Report (1041935) * * *

Changed both

Not charged

F/U charge both

NOTE: Indicate any remarks or comments on the reverse side.

5503 HW 12-13-03

pleted by Emp#: _____ Signature _____ Date: _____ Reconciliation: ____ Failure
epted by Emp# : _____ Signature _____ Asset Downtime: _____ Meter Reading: _____

PE : 092500, 1SP HYDRAULIC SYSTEM Revision No: 0
Set/Cat : 000000000092500 HYD SYSTEM, HYDRAULIC

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hrs

3. DOWNENDER SLIDE CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

4. ENTRY COIL CAR TRAVERSE CYLINDER
(A) CYLINDER MOUNT: : (C) PIPING: :
(B) ROD END: (D) HOSES: :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

COVERED BANDS

5. ENTRY COIL CAR HOIST CYLINDER #78-76-708
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

6. SLIDING SAFETY PLATE CYLINDER:
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

7. ASKANIA CYLINDER
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

8. ENTRY REEL EXPAND CYLINDER:
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

9. SHEAR CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

10. EXIT COIL CAR TRAVERSE CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :

COVERED

11 Dec 2003 17:16:57 *** Inspection Work Order *** WO No: 03-098263-000 (R) Page 6

: 092500, 1SP HYDRAULIC SYSTEM Revision No: 0
et/Cat : 000000000092500 HYD SYSTEM, HYDRAULIC

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hrs

15. INSPECT VALVES, PIPING, HOSES & BRACKETS FOR LEAKS ON THE FOLLOWING HYDRAULIC CIRCUITS. TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK ON TAG. RECORD TAG NUMBERS NEXT TO APPROPRIATE CIRCUIT:

(A) ENTRY COIL CAR TRAVERSE CIRCUIT: ok
(B) ENTRY COIL CAR HOIST CIRCUIT: ok
(C) DOWNENDER TILT CIRCUIT: ok
(D) DOWNENDER SLIDE CIRCUIT: ok
(E) SHEAR CIRCUIT: ok
(F) EXIT COIL CAR TRAVERSE CIRCUIT: ok
(G) EXIT COIL CAR HOIST CIRCUIT: ok
(H) SCALE CIRCUIT: ok
(I) ENTRY REEL EXPAND CIRCUIT ok
(J) EXIT REEL EXPAND CIRCUIT ok
(K) ROLL BENDER CIRCUIT ok
(3/8' X 60' HYD HOSE #06-52-455)
(L) ROLL BALANCE CIRCUIT (B/UPS, W/ROLLS & JACKS) ok
(M) ASKANIA CIRCUIT: ok
(N) BELT WRAPPER SYSTEM: ok

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1041984) * * *

THE SLAB PASS BASEMENT is NOT BEING KEPT CLEAN. CARPET, full GARBAGE CANS KNOCKED OVER BANDS, PAPER, JUNK THROUGHOUT. HARD TO WALK AROUND

OK Hobson/Blaise
Closed 1-8-04

06 Jan 2004 09:03:34 *** Inspection Work Order *** WO No: 04-002131-000 (R)
Page 1

Originator : HAVICAN, THOMAS
Requester : NEWSOME, RAY
Planner : NEWSOME, RAY
Reference :
GL Code Combo : 070180.0000002550.RSCOM

Start Date: 01/06/2004
Shutdown : PROCESS SHUTDO
Parts Reqd: No
Area Code : 06

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 01/07/2004
Late Date : 01/08/2004

000000000061339*62340 Text ID: Insp
Description: STRAND 1 HYDRAULIC SYSTEM INSPECTION, MONTHLY, 061300-061339 061339L1 IN339-1

Asset : 061339, HYDRAULIC SYSTEM 1 Revision No: 0
Asset/Cat : 000000000061339 HYD SYSTEM, HYDRAULIC
Reading: 28555.00 Last Meter
Location :
: 01/06/2004 Last Reading Date

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M	01/06/2004	2	4.00

CODE	
	** INSPECTION **
	1. CHECK FOR PROPER TEMPERATURE OF HYDRAULIC FLUID. (HIGH TEMP.70% C OR158% F-LOW TEMP.115% C OR 59%F)
	2. CHECK OIL LEVEL IN RESERVOIR TANK AND FILL WITH M6C21A IF NEEDED
	3. CHECK ACCUMULATOR FOR GAS CHARGING PRESSURE (ADJUST IF NECESSARY ADJUSTMENT IS 115-120 KG/CM2.
	4. CHECK FOR LEAKAGE OF PIPE FLANGES AND HOSES, ETC.
	5. CHECK FOR ABNORMAL TEMPERATURE IN HYDRAULIC PUMP AND MOTOR CASING.PERMISSIBLE TEMPERATURE (L2 AND SCREW TYPE IS 80% C).
	6. CHECK FILTERS FOR CLOGGING BY THE INDICATORS.

BLUEPRINT FOR USE ARE MM-1224____ SERIES

PAGE]

ITLE : HYD. SYSTEM #1 LOCK OUT PROCEDURE MAIN HYD.ROOM
EQ#/NAME : 061300-061339

WHAT: HYDRAULIC SYSTEM #1 PUMP #1
WHERE: MCC 13 133B WEST OF MAIN HYDRAULIC PUMP ROOM
HOW: STARTER DISCONNECT

WHAT: HYDRAULIC SYSTEM #1 PUMP #2
WHERE: MCC 13 133C WEST OF MAIN HYDRAULIC PUMP ROOM
HOW: STARTER DISCONNECT

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 1166 Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : 4057 Signature: _____ Asset Downtime: _____ Meter
Reading: _____

OK TH Hobson / Blaize

06 Jan 2004 09:04:21 *** Inspection Work Order *** WO No: 04-002132-000 (R)
Page 1

Originator : HAVICAN, THOMAS
Requester : NEWSOME, RAY
Planner : NEWSOME, RAY
Reference :
GL Code Combo : 070190.0000002550.RSCOM

Start Date: 01/06/2004
Shutdown : NO
Parts Reqd: No
Area Code : 06

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 01/07/2004
Late Date : 01/08/2004

Closed 1-8-04

Text ID: Insp

000000000061340*62341
Description: STRAND 2 HYDRAULIC SYSTEM MONTHLY INSPECTION

Asset : 061340, HYDRAULIC SYSTEM 2 Revision No: 0
Asset/Cat : 000000000061340 HYD SYSTEM, HYDRAULIC Last Meter Reading: 28508.00
Location : Last Reading Date : 01/06/2004

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M	01/06/2004	2	4.00

CONDITION CODE #1==> OK #3==> IMMEDIATE ATTENTION
#2==> SCHEDULE #4==> UNABLE TO DETERMINE

CODE	** INSPECTION **
___	1. CHECK FOR PROPER TEMPERATURE OF HYDRAULIC FLUID. (HIGH TEMP.70% C OR158% F-LOW TEMP.115% C OR 59%F)
___	2. CHECK OIL LEVEL IN RESERVOIR TANK AND FILL WITH M6C21A IF NEEDED
___	3. CHECK ACCUMULATOR FOR GAS CHARGING PRESSURE (ADJUST IF NECESSARY ADJUSTMENT IS 115-120 KG/CM2.
___	4. CHECK FOR LEAKAGE OF PIPE FLANGES AND HOSES, ETC.
___	5. CHECK FOR ABNORMAL TEMPERATURE IN HYDRAULIC PUMP AND MOTOR CASING.PERMISSIBLE TEMPERATURE (L2 AND SCREW TYPE IS 80% C).
___	6. CHECK FILTERS FOR CLOGGING BY THE INDICATORS.

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: _____ Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

06 Jan 2004 12:03:36 *** Routine Work Order *** WO No: 04-002157-000 (R)
Page 1

Originator : HAVICAN, THOMAS
MAINTENANCE
Requester : THOMAS HAVICAN
Planner : HAVICAN, THOMAS
Reference :
GL Code Combo : 070190.0000002550.RSCOM

Start Date:

Shutdown : YES
Parts Reqd: No
Area Code : 06

Action Code: ROUTINE

Priority : 5
Project No :
Date Reqrd : 01/07/2004
Late Date :

Description: STRAND 2 HYDRAULIC SYSTEM, INSTALLFILTER KIDNEY PUMP

Asset : 061340, HYDRAULIC SYSTEM 2 Revision No: 0
Asset/Cat : 000000000061340 HYD SYSTEM, HYDRAULIC
Reading: 28508.00 Last Meter
Location :
: 01/06/2004 Last Reading Date

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M		2	4.00

STRAND 2 HYDRAULIC SYSTEM, INSTALLFILTER KIDNEY PUMP

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1052019) * * *

1-6-04

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: _____ Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter
Reading: _____

CHRISTIE ✓ JOB # 12

09 Jan 2004 13:53:02 *** Repetitive Work Order *** WO No: 04-000614-000 (R)
Page 1

Originator : REPORT, ADMIN AINTENANCE
Requester : MARSAC, GARTH
Planner : MARSAC, GARTH
Reference :
GL Code Combo : 066950.000000350O.RSCOM

Start Date: 01/10/2004
Shutdown : NO
Parts Reqd: No
Area Code : 083

Action Code: ROUTINE
Priority : 5
Project No :
Date Reqrd : 01/12/2004
Late Date :

000000000086330*82001 Text ID: Rep
Description: FINISH MILL BACKUP ROLL CHANGE HYDRAULIC PUMP SELECTION

Asset : 086330, HYDRAULIC SYSTEM, T Revision No: 0
Asset/Cat : 000000000086330 HYD SYSTEM, HYDRAULIC
Location : FINISH MILL OIL BASEMENT H-47

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1		08HY	01/10/2004	1	1.00

FACILITY : HOT STRIP MILL *** JOB 954 *** HYDBUFM
TITLE : SELECT HYD. PUMPS- FM B/UP ROLL CHANGE-REPETITIVE
APPLICATION : HYDRAULIC REPAIR
AUTHOR : G. PENDOLINO
EQUIPMENT # : 086330, HYDRAULIC SYSTEM,T

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CHANGE OF BACK UP ROLLS AT THE FINISHING MILL

PRIOR TO ASSISTING IN THE CHANGE OF ROUGHING MILL ROLLS:

A. OBSERVE THE FOLLOWING AT THE ELECTRICAL SELECTION PANEL IN THE ROUGHING MILL OIL BASEMENT AT SYSTEM T.
   1. CONDITIONS PERMITTING, THERE SHOULD BE THREE HYDRAULIC PUMPS. POSITION 1(EAST); POSITION 2(WEST); POSITION 3(AISLEWAY). THE PANEL WILL HAVE A SELECTOR SWITCH FOR ON/OFF POSITION AND A SELECTOR SWITCH FOR HAND, LAG, LEAD FOR EACH PUMP AS LISTED.

B. AT THIS TIME YOU WILL TURN SELECTOR SWITCH WHICH WAS IN LAG POSITION TO LEAD POSITION; ALSO INDICATE THE PUMP NUMBER IN THE SPACE PROVIDED BELOW DURING ROLL CHANGE.

DURING ROLL CHANGE AFTER ROLL CHANGE

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 5043 Signature: C Hughes Date: 1-10-04 Reconciliation: ___
Failure: ___
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

RSC1203IR#3-0021

Charlie Job # 12

09 Jan 2004 13:53:39 *** Inspection Work Order *** WO No: 04-000419-000 (R)
Page 1

Originator : REPORT, ADMIN
Requester : MARSAC, GARTH
Planner : MARSAC, GARTH
Reference :
GL Code Combo : 050410.0000003500.RSCOM

Start Date: 01/10/2004
Shutdown : DOWNTURN
Parts Reqd: No
Area Code : 083

Action Code: INSPECTION
Priority : 4
Project No :
Date Reqrd : 01/12/2004
Late Date :

Text ID: Insp

000000000083000*82007
Description: FINISH MILL RAIL LIFT HYDRAULIC CYLINDER INSPECTION

Asset : 083000, FINISH MILL
Asset/Cat : 000000000083000 HYD PARENT, ROLLUP
Reading: 8712487.00
Location :
: 01/09/2004

Revision No: 2
Last Meter
Last Reading Date

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1		08HY	01/10/2004	1	2.00

FACILITY : HOT STRIP MILL *** JOB 553 *** HYRLCYL
TITLE : INSPECT HYD. RAIL LIFT CYLS. F/MILL-INSPECTION
APPLICATION : HYDRAULIC REPAIR
AUTHOR : G. PENDOLINO
EQUIPMENT # : 083000, FINISH MILL

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ROUGE STEEL
H O T S T R I P M I L L
HYD. RAIL-LIFT CYL. INSPECTION HYRLCYL

F-1 MILL
A. ROD END ____ NE ____ NW ____ SE Leak SW ____
B. PIPING ____ NE OK NW ____ SE OK SW ____
C. TUBING ____ NE ____ NW OK SE ____ SW OK
D. HOSES ____ NE ____ NW ____ SE ____ SW ____
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS ____
F. MATERIALS REQUIRED FOR REPAIRS ____
G. MATERIALS OBTAINED FOR REPAIRS ____
H. CLEAN UP REQUIRED AT AREA (YES ____ (NO) ____

F-2 MILL
A. ROD END ____ NE OK NW OK SE OK SW OK
B. PIPING ____ NE ____ NW ____ SE ____ SW ____
C. TUBING ____ NE ____ NW ____ SE ____ SW ____

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 7043 Signature: C Rivera Date: 1-10-04 Reconciliation: ____
Failure: ____
Accepted by Emp# : ____ Signature: ____ Asset Downtime: ____ Meter
Reading: ____

Jan 12

09 Jan 2004 13:53:39 *** Inspection Work Order *** WO No: 04-000419-000 (R)
Page 3

Asset : 083000, FINISH MILL Revision No: 2
Asset/Cat : 000000000083000 HYD PARENT, ROLLUP

DESCRIPTION
Step Crew Craft Schedule Date Persons Hrs

B. PIPING NE NW SE SW
C. TUBING NE NW SE SW
D. HOSES NE OK NW OK SE SW OK
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES) (NO)

F-7 MILL
A. ROD END NE NW SE SW Leak
B. PIPING NE NW SE SW minor
C. TUBING NE OK NW OK SE OK SW
D. HOSES NE NW SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES) (NO)

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
1-10-04	7043		[ ]				[ ]				[ ]
	6778		[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1054394) * * *

Ellis CHRISTIC ✓ JOB #14

09 Jan 2004 15:14:22 *** Routine Work Order *** WO No: 04-002430-000 (R)
Page 1

Originator : MARSAC, GARTH
MAINTENANCE
Requester : GARTH MARSAC
MAINTENANCE
Planner : MARSAC, GARTH
Reference :
GL Code Combo : 066150.0000003500.RSCOM

Start Date: 01/10/2004
Shutdown : AREA SHUTDOWN
Parts Reqd: No
Area Code : 084

Action Code: ROUTINE
Priority : FACILITY
Project No :
Date Reqrd :
Late Date :

Description: #3 FCE. W/B HYD. POWER UNIT. TAG #26540

Asset : 080380, HYD SYSTEM, 3 FCE W/BE
Asset/Cat : 000000000080380 HYD SYSTEM, HYDRAULIC
Reading: 2974523.00
Location : FURNACE BASEMENT G-19
: 01/09/2004

Revision No: 0
Last Meter
Last Reading Date

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1	08M1	08HY	01/10/2004	2	4.00

PRESSURE HEADER TWO LEAKS, AT WELDS, ONE AT NORTH LIFT VALVE SO THE OTHER AT TEE. EAST SIDE OF VALVE.

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
1/11	5585	2	[ ]				[ ]				[ ]
1/11	6052	2	[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1054581) * * *

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 5585 Signature: SC Date: 1-11 Reconciliation: ____
Failure: ____
Accepted by Emp# : 6052 Signature: [signature] Asset Downtime: ____ Meter Reading: ____

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTHEAST MICHIGAN DISTRICT OFFICE

JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

July 14, 2003

Mr. Donald.S. Windeler, Manager
Environmental Engineering
Rouge Steel Company
3001 Miller Road
PO. Box 1699
Dearborn, MI 48121-1699

Dear Mr. Windeler:

SUBJECT: MID 087 738 431

This correspondence is written to acknowledge receipt of your letter dated April 30, 2003, and e-mailed photograph dated May 27, 2003, which itemize actions taken by Rouge Steel Company, (hereafter Facility), located at 3001 Miller Road, Dearborn, Michigan, to correct violations in one or more of the following: Part 111, Hazardous Waste Management (Part 111), and Part 121, Liquid Industrial Wastes (Part 121), of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); Subtitle C of the federal Resource Conservation and Recovery Act of 1976, as amended (RCRA), and any administrative rules or regulations promulgated pursuant to these Acts. These violations were observed by staff of the Department of Environmental Quality (DEQ) and by staff of the U.S. Environmental Protection Agency during an inspection conducted on October 22, 2002, October 23, 2002, October 24, 2002 and October 31, 2002 and the Facility was notified of these violations in a letter from DEQ dated March 31, 2003. This letter was sent out subsequent to a November 25, 2002 letter of warning (LOW) and identified additional violations not documented in the aforementioned LOW.

This is to notify the Facility that based on the information in your letter, dated April 30, 2003, and the e-mailed photograph dated May 27, 2003, staff of the DEQ has determined that the Facility has corrected the violations identified with regard to the regulations cited.

Additional comments,

A. With regard to violation number one in the March 31 LOW, there is no conflict of interest with the Corrective Action Consent Order and the Facility would not require a separate generator identification (ID) number for the Schaefer Road Waste Water Treatment Plant (SRWWTP) as long as the Facility is not manifesting any waste shipments to that Facility. In your April 30, 2003 letter, it was stated that these shipments have stopped. Since 40 CFR Part 279, only requires used oil transfer facilities and used oil processors, whose process makes the used oil more amenable for recovery, to obtain an ID number. Liquid industrial waste ID

numbers, assigned under Part 121, are not site specific, so the existing ID number assigned at the 3001 Miller Road location is proper to use for the adjacent SRWWTP for liquid industrial waste, including used oil, disposal.

B. With regard to violations 3 and 4 in the March 31, 2003 LOW, the containers have now been identified as part of the secondary containment system for off-loading trucks. These would not be required to be marked with the words "Used Oil" as your letter states, however, the DEQ recommends that the Facility place tarps over these units so they do not collect and commingle rainwater and oil. Proper management of a secondary containment system requires the units to be dry so they remain effective reservoirs for with enough capacity to handle potential inadvertent spills.

C. The DEQ has been furnished with a copy of the U.S. EPA information request submittals from Rouge Steel Company dated April 25, 2003 and May 19, 2003. These documents are currently under review by U.S. EPA and DEQ.

D. The May 27, 2003 e-mailed photograph depicting the application of the coating to the hazardous waste storage pad along with the description seal coat material provided is adequate documentation to resolve the violation originally identified in the November 25, 2002 LOW (violation number 2).

However this letter does not preclude, nor limit, the DEQ's ability to initiate any other enforcement action, under state or federal law, as deemed appropriate.

If you have any questions, feel free to contact me.

Sincerely,

Mark F. Daniels

Mark F. Daniels
Environmental Quality Analyst
Waste and Hazardous Materials Division
734-953-1477

cc: Ms. Karen Goryl, Rouge Steel
Ms. Diane Sharrow, U.S. EPA Region 5
Ms. Sue Brauer, U.S. EPA Region 5
Ms. Kimberly Tyson, WHMD, DEQ
Dr. Benedict N. Okwumabua, WHMD, DEQ

Photographs

U.S. EPA REGION 5
WASTE, PESTICIDES AND TOXICS DIVISION
ENFORCEMENT AND COMPLIANCE ASSURANCE BRANCH

RCRA 3008(A) USED OIL INSPECTION REPORT

FACILITY NAME:	Rouge Steel Company
FACILITY U.S. EPA ID NO.:	MID 087 738 431
FACILITY TYPE:	Regulated
FACILITY ADDRESS:	3001 Miller Road Dearborn, Michigan 48121
FACILITY REPRESENTATIVE:	Donald S. Windeler, Manager Environmental Engineering Rouge Steel Company 3001 Miller Road Post Office Box 1699 Dearborn, Michigan 48121-1699 (313) 845-3217
U.S. EPA REPRESENTATIVE:	Diane M. Sharrow Environmental Scientist DE-9J Compliance Section 1 (312) 886-6199 Fax (312) 353-4342 E-mail: Sharrow.Diane@epa.gov
PARTICIPANTS:	Donald S. Windeler, Rouge Steel Company Karen M. Goryl, Rouge Steel Company Mark F. Daniels, Michigan Department of Environmental Quality James Day, Michigan Department of Environmental Quality Sue Rodenbeck Brauer, U.S. EPA Edward Wojciechowski, U.S. EPA Diane M. Sharrow, U.S. EPA
DATE OF INSPECTION:	October 22 and 23, 2002
NAIC (SIC) CODE:	----

INSPECTION PRIORITY, SECTOR, AND/OR PROCESS: Used Oil

PBTs: ----

INTRODUCTION:

The purpose of the inspection was to determine compliance with Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 P.A. 451, as amended (NREPA), and Subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended and the administrative rules and regulations promulgated pursuant to these Acts. In particular, the authorized Michigan used oil management regulations contained in R 2999.9801 *et. seq* (Part 8 Rules) [40 C.F.R. 279].

SITE DESCRIPTION:

The Rouge Steel Company (RSC) is located at 3001 Miller Road in Dearborn, Michigan. Both RSC and the Ford Motor Company (Ford) operate within an 900 acre site that is roughly bounded to the east by Miller Road, to the south by the Rouge River and the Dix Street Bridge, to the north by Interstate 94 and Rotunda Drive and to the west by Schaefer Road. The Schaefer Road Wastewater Treatment Plant (SRWWTP) operated by RSC is immediately adjacent to Schaefer Road, and across Schaefer Road from the Ford/Rouge Complex. The Rouge River, a navigable waterway, is located to the south. RSC and Ford, for the most part, have separate operations and buildings.

BACKGROUND:

RSC was formerly part of Ford, and has operated at the present location since 1919. Ownership of the steel manufacturing processes and operations were transferred entirely to RSC in 1989. RSC and Ford jointly owned a coal-fired powerhouse, which was located at the RSC facility. However, the Powerhouse was decommissioned in February 1999 as a direct result of a fire. The powerhouse is currently being dismantled.

RSC is a fully integrated steel mill with three blast furnaces, two basic oxygen furnaces, two ladle metallurgical facilities, three continuous casters, a hot strip mill, a cold roll mill and a WWTP. The RSC operations include three decommissioned coke oven batteries (operations ceased in 1988), a byproducts recovery plant and the decommissioned power house.

Ford operates several plants within the industrial complex, including a frame plant, an engine plant, a stamping plant, an assembly plant and a WWTP.

RSC produces hot and cold rolled carbon steel strip. This operation requires the use of various oils, emulsions and chemicals. Byproducts are also generated. The RSC Plant is comprised of several facilities, each which its own unique function in the steel making process.

I. COKE MANUFACTURING

The RSC Coke Plant is no longer in operation, and has not been operated since approximately 1987. Sampling was done by RSC at the Coke Plant in the spring of 2002, and an investigation work plan has been submitted to MDEQ corrective action staff for review. The Coke Plant is a priority in Phase 1 of corrective action.

II. IRONMAKING

RSC has two blast furnaces. At the blast furnace, iron ore, limestone and coke are placed into the top of the furnace and heated air is blown into the bottom. Combustion of the coke provides heat and a reducing atmosphere which produce metallurgical reactions in the furnace and result in producing molten iron. The limestone forms a fluid slag. After molten iron is produced in the blast furnace, it is tapped. Both hot iron and slag flow on runners through the cast house where slag is removed and the hot iron is loaded on torpedo cars. The torpedo cars carry the hot iron to the basic oxygen process building for steelmaking. The blast furnace flue gas, which has heating value, is cleaned and burned in stoves to preheat the incoming air to the furnace. The cleaned gas is also sent to the powerhouse for use as boiler fuel.

III. STEELMAKING

A. Basic Oxygen Furnace

Molten iron is delivered to the Basic Oxygen Furnace (BOF). Scrap and molten iron are placed in the BOF and oxygen is then blown into the vessel. High purity oxygen is supplied at high pressure through a water cooled lance mounted above the center of the vessel. A reaction occurs, causing impurities to quickly burn off. Alloys are added and the steel is tapped.

B. Continuous Caster (ConCast)

In the RSC continuous caster process, molten steel is poured from a ladle into a refractory lined tundish or funnel between steel ladle and casting hole, which serves to maintain a constant head of molten metal and provides for a controlled casting rate. Lubricants are sprayed into the molds to facilitate steel movement through the mold. As the metal solidifies in the mold, the cast product is withdrawn continuously. After passing through water cooled molds, the partially solidified product passes into a secondary cooling zone, where sprays of water remove sufficient heat to complete solidification of the semi-finished product. The product then passes into a cut-off zone, where it is cut to a desired length.

IV. FINISHING

A. Hot Strip Mill

Slabs of steel are transferred from the RSC continuous caster by a mobile carrier to the piler at the entry end of the reheat furnaces. The slabs are placed in three reheat furnaces where they are heated to a desired rolling temperature. The heated slab is then passed through four roughing mills stands where scale is removed by high pressure sprays and the slab thickness is reduced. The slab continues through seven finishing stand rollers where the strip is reduced to desired thickness. The coil then continues across a run-out table where it is sprayed with water to cool the strip to the desired finishing temperature for physical properties. The strip is then wrapped into a coil of steel called a black band. Gear oil, lubrication oil, hydraulic oil and grease is used on equipment and on rollers with troughs underneath.

B. Cold Roll Mill and Pickling Line:

Unheated steel products are reduced in thickness by RSC cold rolling operations which compresses the steel between rolls to reduce the thickness of the product while imparting physical, mechanical and surface properties. Oil solutions are applied directly to the rolls or product to dissipate the heat produced during rolling and to provide lubrication. Various oils, including gear oil, lubrication oil, hydraulic oil and grease, are used depending on the product being rolled and the properties desired in the steel.

V. RSC's Spill Prevention, Containment and Countermeasure or SPCC documents list bulk oil at numerous locations, including the following:

BASIC OXYGEN FURNACE

Diesel Fuel Tank at north ladle cleaning station
Diesel Fuel Tank at south end of BOF
Lubrication Fuel Tank - outside east

CONTINUOUS CASTER

Oil Tank east of scale pit
Oil Tank west of scale pit

HOT STRIP MILL

Lubricating oil A oil System Tank in Basement
Hydraulic Oil Portable Tank at K47
Hydraulic Oil Tank Unloading at 1110
Hydraulic Oil Portable Tank at 1176
Used Oil Tank above scale pits
Oil tank above scale pits
HSM Oil Storage Area totes at B68

COLD MILL AND PICKLING LINES

Outside Processing Oil Tank at AA39
Oil Blending Station Tank (10,000g)1 at SO ROW
Oil Blending Station Tank 2 (6,000g) at SO ROW
Oil Blending Station Totes at SO ROW

J-9 SHOPS - HILO SHOP

Hazardous waste and waste oil drums and totes at J9-SW
Caster Storage Drums and Totes at j9-Sw
Used Oil Tank at Hilo Shop west
Hilo Shop Oil Storage Drums and Totes at Hilo Shop South

VI. OIL MANAGEMENT

A review of corrective action "Facility Assessment" documents and billings for oil removal indicated oil management at multiple locations and in multiple units, including containers and tanks, and sewers.

VII. SEWER SYSTEMS

The RSC property is drained by four major sewer systems into the Rouge River. Outfall 001 at Schaefer Road drains most of the southwesterly portions of the RSC Complex. According to RSC, the only sources of process wastewater piped to the Schaeffer Road Wastewater Treatment Plant (SRWWTP) are the cold mill and the hot strip mill. This process wastewater is pumped through two clarifiers and two lagoons (oil polishing) for "treatment" of oil and suspended solids. Outfall 002 or the 12 A Lagoon drains the property west of the Boat Slip. Outfall 004 drains the northeast portion of the property and areas adjacent to the Boat Slip. Outfall 006 drains the southeastern portion of the property including power and utility operations.

VIII. INTAKE /PRODUCTION WATER

RSC has indicated that oil and grease concentrations in RSC's intake water range from 3.6 mg/l to 11 mg/l.

USED OIL COMPLIANCE EVALUATION INSPECTION (CEI):

The unannounced Used Oil CEI inspection at RSC began about 9:00 AM on Tuesday, October 22, 2002 at Gate 2 of the Rouge/Ford Complex with the acquisition of vehicle passes for U.S. EPA and MDEQ from Rouge security staff. Mr. Windeler of RSC then presented facility specific safety training. The safety training covered general safety, environmental requirements, area specific requirements and environmental regulations. A brief opening meeting was then held where Ms. Sharrow and Mr. Daniels explained the purpose of the focused Used Oil CEI inspection. Specifically, that the inspection was a used oil CEI, to be followed by a hazardous waste inspection conducted independently by Mr. Daniels. Ms. Sharrow and Mr. Daniels explained that the inspectors were interested in all areas where RSC generates and manages oil and used oil. Mr. Windeler inquired specifically whether the CEI was related to the Rouge and Detroit River Oil Spill in April 2002, and if it there was a relation, he wanted to consult with RSC's legal counsel. Both Mr. Daniels and Ms. Sharrow responded negatively. After a brief discussion it was determined that the inspection would start at the Continuous Caster (ConCast).

The CEI participants proceeded from Gate 2 to Gate 1. The convoy of RSC, U.S. EPA and MDEQ vehicles then proceeded onsite and made their way to the Continuous Caster. Along the way, the U.S. EPA inspectors observed from their vehicle that Doetsch (a contractor to RSC) vacuum trucks were positioned under a conveyer across from the Rouge River Boat Slip. When U.S. EPA staff inquired about the activities, RSC stated that Doetsch was either vacuuming pellets or storm water in order to access the conveyer for repair or maintenance.

CONTINUOUS CASTER BUILDING:

At the ConCast Building the CEI participants were introduced to John Smith, Superintendent of Maintenance, RSC. Mr. Smith escorted the participants around the ConCast Building. At the time, RSC representatives stated that hydraulic oils were primarily used in the ConCast operations, and that the largest volume of oil used at the ConCast is Quaker Quintolubric 822-220, a fire-resistant polyol ester hydraulic fluid. RSC has three casters located on individual strands or lines. Strand 3 or Line 3 was not operating on the day of the inspection. Strand 3 is used for batch casting.

According to RSC the ConCast Building also has a closed water treatment system. For example, if a hose were to rupture, the oil or fluid goes to a "sluiceway" and on to a settling basin. An oil skimmer then removes the oil or a RSC contractor such as Vac-All or Doetsch removes the oil. The water then filters through a sand system, is cooled, and removed. According to RSC waste oil is not stored in drums due to the difficulty in handling the drums. RSC also stated that the mill or intake water is recycled water, drawn originally from the Rouge River, and treated with chemicals prior to use. RSC also stated that the intake water sometimes already contains 5 - 20 ppm oil. Oily water then goes to Outfall 002 and is then trucked from various units in the ConCast Building to the to the SRWWTP sludge ponds. At the SRWWTP, overflow water from the sludge ponds flows to the clarifiers, then to the primary lagoon, the secondary lagoon, and is finally discharged through Outfall 001.

In the ConCast Building there are three large hydraulic systems in two rooms: Strand 1 and 2 in the first room and Strand 3 in the second room. According to RSC, the hydraulic oil mixes with the contact water and then flows to a sluiceway and on to the scale pits which are equipped with skimmers. The oil from the skimmers is then stored in a holding tank.

The CEI inspectors noted that in the first hydraulic system room, the Strand 1 system is on the left and the Strand 2 system is on the right. The two systems appeared to be identical or mirror images of each other across a center aisle. Trenches were cut into the floor and covered with metal grates ("sluiceways"). According to RSC the trenches flow into the sluiceway. There were drip pans placed under the pump motors, most of them nearing capacity with standing oil. According to Mr. Smith, the standing hydraulic oil is from filter changes and that the drip pans are cleaned once the entire bottom is covered. It is not clear how RSC manages the oil from the drip pans. The hydraulic oil was a caramel color. Ms. Brauer found a black three-ring binder, which appeared to be a log for replacing hydraulic fluid for the 8 meter deck tank on the Strand 2 line. According to this log, hydraulic oil additions were made on 11/17/99, 11/20/99, 11/23/99, 12/03/01, 12/16/01, 5/5/02, 7/18/02, 8/8/02, and 10/19/02 in amounts ranging from 50 liters to 300 liters. There was uniform oiling on and around the equipment.

In the second or Strand 3 hydraulic or system room, the CEI inspectors observed a center oil reservoir tank with seven or eight pumps, lined up on opposite sides of the reservoir tank. There was one pan under the reservoir tank with an estimate of at least one inch of oil. Oil was dripping from the overhead pipes to the floor (not being caught by a catch pan). There was enough oil dripping from the overhead pipes to have coated all of the piping with a caramel color, and to form a coating of oil on the floor. The area of the floor with an oil coating was approximately 2 feet by 1 and ½ feet, with a small circular area of a darker oil color with no oil-dri. The oil was dripping fast enough that the CEI inspectors could watch it drip. There were also dripping pipes above the floor (not above the pan) on the side of the hydraulic system opposite the room door. There was saturated oil-dri on the floor beneath the drips, but there did not appear to be a supply of oil dri in the room. There was uniform oiling on and around the equipment.

According to RSC, the concrete in the room is two feet thick with no sumps. The typical reservoir volume times 2 equals the volume in the lines. A one gallon loss over 24 hours would be noticed. RSC also stated that the hydraulic system's pressure is monitored and there are alarms for pressure drops. Maintenance repairs occur every two to three weeks, with hydraulic oil filters being placed in a drum and tank oil going to Edwards Oil. RSC also stated that oil samples are checked for rubber, brass and other wear indicators. The Strand 3 Main Hydraulic Room did not appear to be emptying into the grated sluiceway.

At the ground floor water valve station just north of strand 3, the CEI inspectors observed oil dripping through the floor above from a valve stand. According to RSC, the oil from the ceiling drips enter the piping trench and flows to the sluiceway. There was a square scrap oil tank, a 55 gallon waste oil container and 10 "paint-can" containers of an oily grease waste located in this area. There was also a hose located on the floor. The oil and standing water on the floor was approximately a quarter to a half inch thick.

On the next floor of the ConCast Building, the CEI inspectors observed cast steel rolling down the line. We then exited the building, where Gene Filek of RSC showed us the ConCast Building's wastewater treatment system. Presumably, the hydraulic contact water flows in from the sluiceway. A C-type skimmer (basically a horizontal pipe with a length-wise piece about four inches wide removed) collects oil from the water. There is a black material located along the sides of the pits and on the ground outside the wastewater treatment tanks, which is referred to as "scale". According to RSC, the RSC contractors, Vac-All and Doetsch, remove the oily water.

During this time, the CEI inspectors also noted a tanker truck spraying an oil like material on the ground. RSC stated that it was an emulsion used for dust suppression. Ms. Brauer noted that the material was being sprayed from a tanker truck without a legible company name, but that it said nonhazardous or non-toxic, or something like those words.

The wastewater tank for Strands 1 and 2 had two rope skimmers. The CEI inspectors saw collected oil going into a horizontal "oily water tank." According to RSC, the percentage of oil is by visual inspection and at this time is very low. The volume of the tank is 6,000 gallons. The same size tank is used for Strand 3 with one rope skimmer. Both tanks appeared to be in good condition and we did not observe any leaking. The tanks were not labeled "Used Oil". Oil from the two skimmers goes to the SRWWTP. According to Mr. Filek, the remaining ConCast water is sand-filtered and then cooled, rinsed and reused. RSC also stated that the intake water is sent through a filter system prior to use.

We then proceeded to Lagoon 12A across the road from the ConCast Building water treatment. According to RSC, the Blowdown, or one-half of one percent of the recycle water system volume, flows to Lagoon 12A every 3 weeks. Blowdown is removed to reduce excess dissolved solids due to evaporation. Storm water and non-contact cooling water also go to Lagoon 12A.

At Lagoon 12A, the CEI inspectors noted a brown scum resembling oil upstream of oil booms across midpoint of the Lagoon. The mid-section of the boom was missing, with vegetation growing on either side. Flow appeared to enter at the south end and exit through the 002A outfall. Ms. Goryl and Mr. Filek of RSC noted that they have seen turtles, frogs, ducks, and kingfishers on Lagoon 12A. There were three drains with no sign of flow through thick vegetation on the west side of Lagoon 12A. A smaller boom near the outfall was holding back scum. According to RSC and Jim Day of MDEQ, the RSC NPDES permit requires twice a month Discharge Monitoring Reports. There was some speculation that dust may be causing the oily sheen on Lagoon 12A.

After a lunch break, the Used Oil CEI resumed at the Cold Rolling Mill (CRM).

COLD ROLLING MILL (CRM)

RSC stated that the existing CRM went into service circa 1959. Prior to entering the CRM, the inspectors noted a fenced tank that appeared to contain pickle oil with an RO-60 product code. This tank appeared to be a product tank with standing oil in the secondary containment. According to RSC, the tank contains Henkel Surface Technologies rolling mill solution (a pickle oil?) used to coat steel strips coming off the cold rolling and pickle lines. According to RSC, pickle oil is an oil with sulfurized animal lard that coats the steel strip coming off the line.

We then entered the cold rolling line area, which takes hot rolled steel and rolls it. According to RSC, the pickle liquor removes oxidized material, then the steel can be coated and sold or cold rolled through a double roll stand that makes the steel stronger. The steel strips coming off the tandem mill are placed in a furnace at approximately 1800° F, and then run through a skin pass mill to give the steel a tougher surface.

We then entered the CRM office area and were introduced to Marty Beaver, Superintendent of the Cold Mill, RSC. We observed that used oil was being generated at the exit end of the pickle (HCl pickling) line, tandem mill, and temper mill. There were 5 to 6 oil systems on the tandem mill line. The rolling oils and hydraulic oils both flowed into one big sump in the basement. According to RSC, a Vac-All truck removes the used oil and transports it to U.S. Liquids (formerly City Environmental) in Detroit.

Ms. Brauer observed a paper filter media being placed in a dumpster. According to RSC, the paper filter media is managed off-site by Waste Management Incorporated. Some basket filtrate is hosed in the basement. Smaller filter baskets are cleaned in parts washers. Oils used include hydraulic, gear, 1MORGOIL, rolling oil (2-3% water emulsion from Stands 1 - 3), detergent with light lubricant (from Stand 4). Rolling oil and detergent oil are dumped most often. The CRM sends 9,000 to 10,000 gallon shipments to U.S. Liquids at an undetermined frequency.

In the basement of the CRM, the sump was covered by metal grates. The stairs, stair railing, and floor were slick and covered with an oily coating. The CEI inspectors noted that all the surfaces seemed to have an oil coating. RSC stated that compressed air was used to bubble the used oil in the sump, otherwise, the RO-60 lard sticks or congeals within the stump and to the sump walls and is impossible to remove. No "used oil" signs were observed on the sump. According to RSC, the oil sump (tank) in the basement was last emptied by a contractor in July 2002, has not been inspected for integrity, but the concrete is 12 to 18 inches thick. According to Mr. Beaver, all the oils in the CRM are recirculated except for the sump.

The old (pre-1959) tandem mill had a basement that was filled in. A wooden block floor now covers the fill. Coiled steel drains oil to the block floor. At the side aisle, there was a gutter to collect the drained oil, but there were no gutters bordering each aisle of coils. According to RSC aisles are squeegeed down to 30 gallon sumps (not labeled "used oil"), and absorbent mats are also placed on the aisle floor (presumably for safety) and are disposed of in a solid waste dumpster.

There are three pickling lines, numbers 1, 3 and 4. We observed the Number 4 pickle line oiling unit. The oiling unit was self-contained, with oil squeegeed during rolling and then captured in a sump. According to RSC, the oil pit at the inspection line is then vacuumed out. Oil from the packaging of sheet coil (banding), then ends up in the basement.

According to RSC, the number 1 temper mill used oil tanks are utilized for oil coming from the basement, and then the used oil is removed by vacuum truck. The temper mill used oil tanks were not labeled "used oil". The oil used in the temper mill is Ferrocote 502RS. According to RSC, the number 2 temper mill runs about once per month. The two oil tanks were marked "Scrap oil only", with both sitting on an oily, sludgy floor. The coils conveyor was set in concrete and drains to a sump (yellow scum on reddish brown oil). According to RSC, the TCLP is performed on

all its on used oil to avoid liability.

HOT ROLLING/STRIP MILL (HSM)

RSC stated that the existing HSM went into service circa 1974, and wastewater from the HSM is piped to the SRWWTP. Gilbert Pendolino of RSC escorted us through the HSM. Mr. Pendolino explained that in the HSM, coating oil is lost through process operations. He also explained that the piping outside R5 stand, 6 stand, AC 7 stand and HB-1 Suf R correspond to tanks inside for product. The oil containment for the hoses was unused. The Quaker Quakerol HB-1 Sulf R oil (also known as "snake oil") is burned off.

We then entered the basement of the HSM. An AC Oil System lube is the backup for roll bearings. Troughs are cut into the concrete floor. Bag filters are utilized. When the bag filter is cleaned out, oil spills to the floor. Mr. Pendolino stated that the oil spilled to the floor flows to a trough, but the CEI inspectors observed that the oil was standing, not flowing. Mr. Pendolino then led us from one end of the HSM basement to the other end and back again. There were floor sumps and trenches cut in the concrete floor similar to the ConCast Building. According to Mr. Pendolino 822-68RD hydraulic oil is conspicuously red. The CEI inspectors noted that this "red" oil formed a distinctive leak or puddle on the basement floor in several locations. The CEI inspectors also noted several 55 gallon drums of COMPSROIL in the basement of the HSM.

We then exited the HSM and went outside to the HSM oil drum pad; a fenced but open-gated enclosure. Mr. Pendlino noted that the grease located in the oil drum pad is too full of debris to recycle. We noted that many of the 55 gallon containers were dented and damaged and some were overflowing. There was grease on the drum pad floor, as well as broken pallets and grease on the ground outside of the enclosure. According to Mr. Pendolino used grease is disposed at the Ford Allen Park Clay Mine landfill.

At the HSM scale pit and WWTP, there were three basins with rope oil skimmers. According to RSC, the oil from ropes is collected and piped to a 7,000 gallon horizontal tank. The tank was not labeled "used oil". According to Mr. Pendolino, when Doetsch hauls used oil from this WWTP, it then goes to the SRWWTP.

At this point during the inspection, Ms. Sharrow asked Mr. Windeler what the source(s) of oil were that were going to the SRWWTP. Mr. Windeler responded that there were 1)trace oils

from the HSM; 2) gear, hydraulic oils and grease piped from the HSM; 3) trace oils from the water sumps in the CRM; and 4) hydraulics, pits and pickle rinse sewers from the CRM.

Ms. Brauer noted that there was no free-flowing liquids observed in the solid waste roll-off box outside the CRM.

The MDEQ inspectors departed at this time, but the U.S. EPA inspectors went to the drum storage pad adjacent to the Rouge River Boat Slip where mostly oil products were stored. Two dead gulls were observed. They were not visibly oiled. There were small product spills on the concrete pad.

October 23, 2002

Day 2 of the unannounced CEI inspection at RSC began about 8:30 AM on Wednesday, October 22, 2002 at Gate 2 of the Rouge/Ford Complex with the acquisition of vehicle passes. The inspection agenda for the day included the Hi-Lo (also known as J-9 Shop) Shop for equipment maintenance, grindings/swarf at both hot and cold mills, 90-day storage area and the SRWWTP. We entered at Gate 1 and proceeded to the J-9 Shop.

According to RSC, steam for operations is from a co-generation facility across the street from the Rouge/Ford Complex. All storm water from west of the cold mill and south of Road 4 flows to the SRWWTP. RSC also stated that the Ford Stamping Plant storm water also flows to the SRWWTP.

HI-LO SHOP/J-9 SHOP

We were introduced to James DiGiacomo, Maintenance Coordinator, RSC. He accompanied us to the Hi-Lo shop, where RSC vehicles were maintained. We were introduced to Ron Wojnar, General Superintendent, RSC. At the Hi-Lo shop we observed that vehicle engine filters are about one foot long and 5 inches diameter and were drained over the oil sump. Mr. Daniels asked about how the filters were drained and whether all oil is removed. Mr. Daniels advised RSC that the filters might be a TCLP waste, and told RSC they were not puncturing the auto backflow valve to remove all of the waste. Ms. Brauer checked the filters in the scrap container and could not get them to drip and no free-flowing oil was observed in the scrap container. According to RSC the oil is then pumped from the sump to the tank outside, and metal scrap from the Hi-Lo Shop was picked up by Waste Management Incorporated and taken to a scrap processor.

Adjacent to the Hi-Lo Shop, there were two tanks of 1,000 gallons each. According to RSC, both tanks were labeled "waste oil" about a month or so ago. The stencil and painting supplies were inside and adjacent to the secondary containment (housekeeping). Both waste oil tanks were located outdoors, inside a two-walled shed adjacent to the Hi-Lo Shop. The secondary containment was waist high, constructed of welded steel. According to RSC, every two to three months the used oil is removed.

According to RSC, a company named Rission services the parts washers inside the Hi-Lo Shop. This service consists of removing liquids and supplying fresh fluid, but Rission does not remove any material from the site. RSC stated that ethylene glycol is re-used on site.

Pressure washing waste water from the Hi-Lo Shop flows from the floor into a vault/sump and is pumped out by Vac-All. RSC was not sure what company removes the pressure washing waste water. According to RSC, if Vac-All removes the waste, then it goes to U.S. Liquids; if Doetsch removes the waste, then it goes to the SRWWTP.

Mr. Windeler stated that Vac-All takes higher oil content liquids, and Doetsch does power rodding. He further stated Vac-All does more sweeping. According to Mr. Windeler, the contract specifies rates, but there is not a description of facility-specific tasks. He also stated that "in-plant shippers" are used for transport of waste to the SRWWTP. According to Mr. Windeler, new types of materials have to be approved by RSC environmental staff, otherwise the load will be rejected by the SRWWTP operator.

OE30 HOT MILL ROLL GRINDING SHOP

The waste generated by machining the surface of hot rollers in the OE30 Hot Mill Roll Grinding Shop is called "hot mill shop roll grinding swarf." According to RSC, this gray powder is managed by Waste Management Incorporated and is land disposed at Woodland Meadows. According to RSC, the material is not regulated as "used oil" because RSC decided to land dispose it at the point of generation. Coolant (oil) is collected in a concrete pit and re-used. Filters are then dumped with the grindings in a roll-off. On the way out of this building, Ms. Brauer observed standing oil on the ground near the concrete pit. There did not appear to be a engineered floor throughout the building. Heavy grease was also being used in the splines where rollers are driven. Most of the greases being used were in

table mills where slab rolls along.

PIPE SHOP

The used oil tank between the girders labeled C15 and C16 was labeled "waste oil."

COLD MILL GRINDING SHOP

According to RSC staff, RSC sends 600,000 tons of swarf to Edward Levy Company's low hazard land disposal facility. The coolants from the shop are then recirculated.

90-DAY DRUM STORAGE

Drums of used oil were stored at the far end from the entry point. All of the drums were stored next to the berm. Mr. Daniels talked to RSC about "squirt" protection, i.e, if a container has a leak it might squirt over the berm if stored right next to the berm. According to Mr. Windeler, K & D Services manages this facility for RSC. The used oil in drums is pumped out and then the drums are crushed. The drums were not labeled "used oil," but they were labeled to indicate that the contents were waste oil. No leaks were observed, but some drums were dented.

SCHAEFFER ROAD WASTEWATER TREATMENT PLANT (SRWWTP)

Upon arrival at the SRWWTP, Ms. Brauer questioned RSC staff. According to RSC staff, Doetsch had been on-site since 8:30 AM, at least two hours, pumping oil from the ponds. John Drabek or Steve Darcangello of Doetsch assigns drivers to jobs at the SRWWTP. RSC calls the west sludge pond Number 2 and the east sludge pond Number 1. Number 1 was netted. At the rope skimmer, the rope going down was rubbing against the rope going up, sending oil back down the rope. Number 1 contained bubbles and an oil sheen, and appeared to be aerated. There was a bulk tank or oil tank between Number 1 and 2.

Ms. Brauer specifically asked Mr. Windeler whether the sludge ponds had double liners. He answered no. Ms. Brauer specifically asked Mr. Windeler if the sludge ponds had a ground water monitoring system. He answered no. Ms. Brauer specifically asked Mr. Windeler if the sludge ponds had a leak detection system. He answered no. Ms. Brauer specifically asked Mr. Windeler if the ponds had RCRA interim status. He answered no.

According to RSC, daily, an average of 60 to 65 million gallons is received at the SRWWTP. Ms. Brauer asked Mr. Windeler and Ms. Goryl if they knew of a tank treatment system that could manage this flow. They thought that U.S. Liquids probably has the largest capacity locally.

According to RSC a fluid depth of seven feet is maintained in the sludge ponds to achieve good oil and sludge separation. According to Mr. Windeler, RSC adds bacteria in response to an odor problem at the sludge ponds and has found that the growing bacteria co-deposited with the sludge, reduces the volume of sludge generated and the frequency of dredging.

The CEI inspectors observed that RSC was pumping water from the secondary lagoon to the diked lagoon to prevent an island from forming due to low water levels. According to RSC, the island attracts birds. The diked lagoon had a silvery sheen on the downwind side. According to RSC, the diked lagoon typically receives material from the bottom of the primary and secondary lagoons.

The primary lagoon had a geotextile liner extending about 2 feet up from the surface. The secondary lagoon was not lined, but had has a dark, oily-looking ring around the surface.

According to Mr. Windeler, no spilled material from RSC goes to the Rouge River Boat Slip or the SRWWTP.

FINDINGS:[1]

As a result of our inspection, U.S. EPA has determined that Rouge Steel Company (RSC) violated, and is continuing to violate the following used oil requirements:

1. RSC failed to comply with Michigan R. 299.9810(4) and R. 299.9813 (5) [40 C.F.R. 279.54(a)], which requires used oil generators to store used oil in containers and/or tanks.

RSC is trucking used oil and water from the Continuous Caster Building, other RSC locations (see RSC April 24, 2003, Information Request Response Number 10) and used oil units at RSC[2], across Schaeffer Road, to the Schaefer Road Waste Water Treatment Plant (SRWWTP). At the SRWWTP, RSC is depositing used oil and water from the trucks into the clarifiers, the sludge ponds and the diked lagoon. The used oil and water in the clarifiers, in turn, flows to the primary and secondary lagoons. Occasionally, used oil and water is pumped from the primary and secondary lagoons to the diked lagoon to prevent formation of an "island". On occasion, used oil and water (a.k.a., sludge) is also removed from the clarifiers, sludge ponds, primary lagoon and secondary lagoon and placed in the diked lagoon. In turn, used oil and water (a.k.a., sludge) is mixed with lime in the diked lagoon and transported off-site).

2. RSC failed to comply with Michigan R. 299.9810(4) and R. 299.9813 (5) [40 C.F.R. 279.54(a)], which requires used oil generators to store used oil in containers and/or tanks.[3]

RSC is piping used oil and water from the hot mill and the cold mill, including oil dripping from pipes and oil leaks and spill s on the basement floors, etc., across Schaeffer Road, to

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[1] Section 111.E of the Federal Register Preamble to the March 4, 1994 Final Rule (59 FR 43), pages 10550 to 10560. On Page 10555 it states, "It is important to note, however, that owners or operators who generate used oil as a result of any of the activities specified in Section 279.20(b)(2)(ii) are considered used oil generators and are subject to the generator standards in Subpart C." See page 10556.

[2] There is no quantitative regulatory threshold for "used oil" relative to water content.

[3] The wastewater exemption in Part 111, Section 299.9809(g) and 9204(1)(o)[40 C.F.R. 279.10(f)] does not apply to used oil skimmed and otherwise transported or piped to the SRWWTP.

the Schaefer Road Waste Water Treatment Plant (SRWWTP). At the SRWWTP, this used oil and water enters the clarifiers. The used oil and water in the clarifiers, in turn, flows to the primary and secondary lagoons. Occasionally, used oil and water is pumped from the primary and secondary lagoons to the diked lagoon to prevent formation of an "island". On occasion, used oil and water (a.k.a., sludge) is also removed from the clarifiers, sludge ponds, primary lagoon and secondary lagoon and placed in the diked lagoon. In turn, used oil and water (a.k.a., sludge) is mixed with lime in the diked lagoon and transported off-site)

3. RSC failed to comply with Michigan R. 299.9816 [40 C.F.R. 279 Subpart I] by disposing of used oil in an landfill or impoundment without first identifying the used oil as hazardous or non-hazardous.

RSC is dipping steel coils in oil and placing them on the ground and a wood block flor in the cold mill or 279.22(d) by not stopping, containing or cleaning up the release of used oil from the cold mill to the soil/environment.

4. RSC failed to comply with Michigan R. 299.11003 [40 C.F.R. 279.22(d)] by not by not stopping, containing or cleaning up the release of used oil from the Continuous Caster Building floor, as well as the basement floors of the Cold and Hot Mills, to the environment (tracking out of used oil to the soil/environment).

NOTE: SEPARATE NOVs or LOWs to Doetsch and VacAll by USEPA or DEQ?

Doetsch and VacAll do have U.S. EPA identification Numbers (see RSC April 24, 2003, Information Request Response Number 19). These two transporters, and not RSC (?), are violating 40 C.F.R. 279.43 for transporting used oil to an unlicenced used oil collection center.

ATTACHMENTS

Photographs

PHOTOGRAPH LOG:

ROLL 1: 25 EXPOSURES

Number 1 and 2 Strand Hydraulic Room

Exposure 1: Oil pan with standing oil, oiled equipment and associated piping, floor grate with standing oil.

Exposure 2: Trenches and drip pans with uniform oiling and around equipment and piping, floor grate with standing oil.

Exposure 3: Drum with overflowing oil pan and floor grate with oil, "coffee can" with oil

Exposure 4: Drum with cloths and lumber in oil pan, and floor grate with oil

Exposure 5: Oily "filters" or parts, brush, "coffee can" with oil, oiled "scrapers"

Exposure 6: Bucket with brush and oil, floor grate with oil

Exposure 7: Equipment and piping with standing oil in pans and equipment below

Exposure 8: Equipment with standing oil in pan and on floor

Exposure 9: Equipment with standing oil in pan and on floor

Exposure 10: Equipment with standing oil in pan and on floor, floor grate with oil

Number 3 Strand Main Hydraulic Room

Exposure 11: Drum with "smeared" oil and oil "accumulation" on equipment and associated piping

Exposure 12: Oil on equipment and associated piping, oil pan with standing oil

Exposure 13: Oil on equipment and associated piping, oil pans with standing oil

Exposure 14: Oil on equipment and associated piping, oil pan with standing oil, with oil and oil-dri on floor

Exposure 15: Floor with oil drips and oil pans with standing oil

Exposure 16: Oil on equipment and associated piping, oil pans with standing oil, with oil on floor and oil on "grated" steps

Exposure 17: Sue Brauer, U.S. EPA with oil dripping off of equipment and associated piping onto floors with oil and oil-dri, and standing oil in oil pans

Exposure 18: Sue Brauer, USEPA pointing with pen to oil dripping off of equipment and associated piping

Exposure 19: Oil dripping onto equipment and associated piping

Exposure 20: Picture not focused; unclear

Exposure 21: Oil on piping.

Exposure 22: Oil on piping.

GROUND FLOOR VALVE STATION NORTH OF STRAND NUMBER 3

Exposure 23: Droplets of oil on piping.

Exposure 24: Oil on piping.

Exposure 25: Oil on floor adjacent to hydraulic waste oil "tank".

END

ROLL 2: 25 EXPOSURES

GROUND FLOOR VALVE STATION NORTH OF STRAND NUMBER 3

Exposure 1: Dented drum marked "Scrap Oil Con/Cast", oil on floor.

Exposure 2: Oil dripping from overhead piping.

Exposure 3: Oil and water on floor with "hoses".

Exposure 4: Ten (10) cans of oily sludge-like material.

Exposure 5: Oily water in "sluiceway".

Exposure 6: 6,000 gallon Oily Water Tank Number 2 at scale pit.

Exposure 7: 6,000 gallon Oily Water Tank Number 2 at scale pit.

Exposure 8: 6,000 gallon Oily Water Tank Number 1 at scale pit.

Exposure 9: Lagoon Number 12A with partially submerged boom with Plant growth, Electric Arc Furnace (EAF) in background.

Exposure 10: EAF

Exposure 11: Lagoon Number 12A with brown "scum" on surface of water.

Exposure 12: Lagoon Number 12A.

Exposure 13: Outfall at Lagoon Number 12A with "oily" brown scum on water surface.

COLD MILL

Exposure 14: Pickle Oil Tank with pooled red oily liquid underneath the tank.

Exposure 15: Pickle Oil Tank with pooled red oily liquid underneath the tank.

Exposure 16: Pickle Oil Tank with pooled red oily liquid underneath the tank.

Exposure 17: Equipment and piping coated with oil in basement of Cold Mill.

Exposure 18: South end of Cold Mill basement.

Exposure 19: Cold Mill floor with oil under steel rolls or coils.

Exposure 20: South end of Cold Mill with oil in "floor joints" under steel rolls or coils.

Exposure 21: Oiled "rollers" near steel rolls or coils in Cold Mill.

Exposure 22: Oil on floor of Cold Mill.

Exposure 23: Oily water in recessed area of Cold Mill.

Exposure 24: Rolled or coiled steel on Cold Mill "belt" or "line".

Exposure 25: Rolls or coils of steel stored on wood at cold Mill with oil on the floor and wood in area.

END

ROLL 3: 25 EXPOSURES

HOT MILL

EXPOSURE 1: Scrap oil tanks.

EXPOSURE 2: Scrap oil tanks.

EXPOSURE 3: Scrap oil tanks.

EXPOSURE 4: Scrap oil tanks.

EXPOSURE 5: "Pump Out" Tank box with oily water located on the exterior of the Hot Mill.

EXPOSURE 6: Truck "loading" area with oily water located on exterior of the Hot Mill.

EXPOSURE 7: Basement of Hot Mill with standing oil and water on floor and in grates; uniform oiling of equipment and associated piping

EXPOSURE 8: Basement of Hot Mill with standing oil and water on floor and in grates; uniform oiling of equipment and associated piping

EXPOSURE 9: Basement of Hot Mill with standing oil and water on floor and in grates; uniform oiling of equipment and associated piping, standing oil in oil pan

EXPOSURE 10: Basement of Hot Mill with standing oil and water on floor and in grates; uniform oiling of equipment and associated piping, standing oil in oil pan

EXPOSURE 11: Basement of Hot Mill with standing oil and water on floor and in grates; uniform oiling of equipment and associated piping, standing oil in oil pan, red stained oil

EXPOSURE 12: Oil Drum Storage Area with damaged drums and oil on concrete floor

EXPOSURE 13: Oily water in Drum Storage Area.

EXPOSURE 14: Drums marked "Scrap Oil".

EXPOSURE 15: Damaged open drum with oily sludge material.

EXPOSURE 16: Damaged open drum with oily sludge material, oily sludge material on exterior of drum and on wooden pallet and concrete flooring. Damaged drums of similar oily sludge material stored on top of wooden pallet placed on top of drum.

EXPOSURE 17: Drums with used oil marked used and used oil.

EXPOSURE 18: Drum marked Scrap Oil Drum.

EXPOSURE 19: Broken pallets and oil on exterior grounds of Drum Storage Area.

EXPOSURE 20: Tank in Hot Mill Scale Pit.

EXPOSURE 21: Hot Mill Scale Pit and Used Oil Container or Tank.

EXPOSURE 22: Hot Mill Scale Pit with mounded scale.

EXPOSURE 23: Oil scum on surface of Hot Mill Scale Pit with Skimmer.

EXPOSURE 24: Empty waste oil container or tank and pump at perimeter of Hot Mill Scale Pit.

END

ROLL 4: 0 EXPOSURES

Approximately 8 exposures were made on day 2 of the inspection, before the batteries were drained in the camera. None of the exposures were developed.

PHOTOGRAPH LOG

ROUGE STEEL COMPANY:

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ROLL 4: 0 EXPOSURES

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ECKERT SEAMANS CHERIN & MELLOTT, LLC

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January 20, 2004

Via Certified Mail
Return Receipt Requested

Ms. Diane M. Sharrow (DE-9J)
U. S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Re: Rouge Steel Company: U.S. EPA Information Request Pursuant to Section 3007 of RCRA Dated December 15, 2003

Dear Ms. Sharrow:

In accordance with our telephone conversation of January 14, 2004, we are writing regarding Request No. 3 of U.S. EPA's December 15, 2003 Request for Information to Rouge Steel Company ("Rouge"). Request No. 3 calls for production of maintenance logs and maintenance records for equipment that uses hydraulic oils, for all records since 1999. As we discussed, the number of responsive documents maintained by Rouge is very large, the documents are located in numerous locations at Rouge, and are contained in files that also include maintenance records for non-hydraulic oil equipment.

In order to prevent the unnecessary production of large amounts of documents, we agreed that Rouge would provide the following as an interim response for Request No. 3:

a. Sample pages of a computer database listing of work order that pertain to maintenance on equipment that uses hydraulic oils (RSC1203IR#3 – 0001 to 0005).

b. Samples of recent work orders from the cold mill (RSC1203IR#3 – 0006 to 0013), caster (RSC1203IR#3 – 0014 to 0020) and hot strip mill (RSC1203IR#3 – 0021 to 0027).

In accordance with this approach, copies of the requested sample pages and sample work orders are enclosed. Once you have had an opportunity to review these materials, please contact me to schedule a conference call to discuss revisions to the nature, extent and timing of a response to Request No. 3.

It is our understanding that until EPA evaluates the enclosed and determines what scope of response it is seeking to Request No. 3, that no further document production will be required in response to Request No. 3.

Very truly yours,

Scott R. Dismukes

Scott R. Dismukes
412.566.1998
scott.dismukes@escm.com

Enclosures
cc: Sherry Estes, Esq. (w/encl.)
Donald S. Windeler (w/ encl.)
David A. Rockman, Esq. (w/ encl.)

WORK_ORDER_NO	WO_DESC	USER_CODE	ASSET_NAME
03-097097-000	1PL WELDER, REPAIR LEAK AT SOUTH HYDRAULIC PUMP	09HY	090035, 1PL WELDER
03-097098-000	1PL WELDER, REPAIR LEAK AT SOUTH HYDRAULIC PUMP FILTER	09HY	090035, 1PL WELDER
03-097099-000	1PL WELDER, REPAIR HYDRAULIC LEAK BEHIND WELDER.	09HY	090035, 1PL WELDER
03-097100-000	3PL ENTRY VALVE STAND, REPAIR HYDRAULIC LEAK AT # 4 PUMP.	09HY	090335, 3PL WELDER
03-097101-000	3PL ENTRY VALVE STAND, REPAIR HYD. LEAK ON DOWNENDER CYL. LINE.	09HY	090465, 3PL HYDRAULIC SYSTEM
03-097115-000	F6 BACK-UP ROLL PIT, REMOVE AND REPLACE BAD HYDRAULIC PIPING.	08HY	086330, HYDRAULIC SYSTEM, T
03-097130-000	E1 EDGER INSPECT ROLL CYLINDERS FOR BLOW-BY OR LEAKES REPLACE OR REPAIR AS NEEDED.	08HY	082100, EDGER, E1
03-097135-000	R2 WORK ROLL SLED CHANGE HYDRAULIC VALVE	08HY	086320, HYDRAULIC SYSTEM, S
03-097222-000	1SP CHANGE BACKUPS	09HY	092440, 1SP BACK UP ROLLS
03-097240-000	E1 EDGER SERVICE ROLL CHANGE.	08HY	082100, EDGER, E1
03-097253-000	UPENDER 3 SERVICE REPAIRS	08HY	084330, UPENDER 3
03-097257-000	STRAND 1-2-3 CHECK HYDRAULIC OIL LEVELS AND GREASE BARRELS	06HY	061340, HYDRAULIC SYSTEM 2
03-097282-000	FURNACE 1 W/B TRAVERSE CYLINDER SOUTH.	08HY	080180, HYD SYSTEM, 1 FCE W/BE
03-097283-000	FURNACE 3 W/B LIFT CYLINDER NORTH.	08HY	080380, HYD SYSTEM, 3 FCE W/BE
03-097355-000	R2 ROLL SLED CONTINUE FABRICATING PIPING	08HY	082250, MILL, R2
03-097673-000	TANDEM MILL CHANGE 4 STAND BACKUPS AND GREASE SLEDS	09HY	090989, 2TM BACKUPS
03-097674-000	TANDEM MILL 3 STAND BACKUPS, CHANGE ROLLS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-097752-000	TANDEM MILL 2 STAND CHANGE BACKUPS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-098227-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098228-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098229-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098230-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098231-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098232-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098233-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098234-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098235-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098236-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098237-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098238-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098239-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098240-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098241-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098242-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098243-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098244-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098245-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098246-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098247-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098248-000	TANDEM MILL ROLL BALANCE LEAK INSPECTION	09HY	091002, 2TM ROLL BALANCE HYD
03-098249-000	4PL WELD INSP & REPAIR LISTED CYL. CHECK & TIGHTEN ALL BOLTS.	09HY	090640, 4PL WELDER
03-098250-000	3PL WELD INSP & REPAIR LISTED CYL. & TIGHTEN ALL BOLTS.	09HY	090335, 3PL WELDER
03-098251-000	3PL WELDER CHANGEOUT HYDRAULIC FILTERS ON PLATEN	09HY	090335, 3PL WELDER
03-098252-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098254-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098255-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098256-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098257-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098258-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-098259-000	3PL WELDER HYDRAULIC LEAK INSPECTION INCLUDES FLASHTRIMMER	09HY	090335, 3PL WELDER
03-098260-000	1SP BACKUP CHOCK HYDRAULIC SPARE PART INVENTORY	09HY	092441, 1SP B/UP CHOCK
03-098261-000	1PL ENTRY HYDRAULIC PUMPS AND VALVE STAND INSPECTION	09HY	090160, 1PL HYDRAULIC SYSTEM
03-098263-000	1SP HYDRAULIC CYLINDER AND VALVE STAND INSPECTION	09HY	092500, 1SP HYDRAULIC SYSTEM
03-098264-000	1PL ENTRY HYDRAULIC PUMP AND FILTER INSPECTION 1,2,3 AND 4 PUMP	09HY	090160, 1PL HYDRAULIC SYSTEM
03-098265-000	3PL WELDER HYDRAULIC SYSTEM INSPECTION	09HY	090335, 3PL WELDER
03-098266-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098267-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098268-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT

WORK_ORDER_NO	WO_DESC	USER_CODE	ASSET_NAME
03-098269-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098270-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL M
03-098271-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098272-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-098273-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098274-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098275-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098276-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098277-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098278-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098279-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-098807-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098808-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098809-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098810-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098811-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098812-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098813-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098821-000	DECHOCK BUGGY WEST CHANGE INLET AND PRESSURE FILTER ELEMENT	08HY	088130, BUGGY, DECHOCK, WEST
03-098822-000	DECHOCK BUGGY EAST CHANGE INLET AND PRESSURE FILTER ELEMENT	08HY	088120, BUGGY, DECHOCK, EAST
03-098824-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098825-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098826-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098827-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098828-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098829-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098830-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098960-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098961-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098962-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098963-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098964-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098965-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-098966-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-099010-000	DESULFURIZATION STATION HYDRAULIC SYSTEM INSPECTION	04HY	041501, STATION, DESULF.
03-099025-000	DAILY HYDRUALIC REPAIR FLUID CHECK LIST	04HY	040001, BOF BUILDING
03-099114-000	TANDEM MILL CHANGE THE TOP AND BOTTOM ENTRY PINCH ROLLS	09HY	090904, TM ENTRY PREP EQ
03-099141-000	F5 SOUTH-WEST WORK ROLL RAIL REPAIR HYDRAULIC LEAK	08HY	083500, MILL, F5
03-099186-000	FURNACE 1 W/B HYD. UNIT RETURN LINE FILTER INCORRECT. TEE BEFORE FILTER, FILTER IS BEING BYPASSED, REPAIR.	08HY	080180, HYD SYSTEM, 1 FCE W/BE
03-099197-000	F1 WORK ROLL RAIL COMPLETE REPAIRING HYDRAULIC LEAKS	08HY	083100, MILL, F1
03-099198-000	F5 WORK ROLL RAILS REPAIR HYDRAULIC LEAKS	08HY	083500, MILL, F5
03-099199-000	FURNACE AREA REPAIR TAGGED LEAKS	08HY	080000, SLAB REHEAT FURNACES
03-099201-000	FURNACE AREA REPAIR TAGED LEAKS	08HY	080000, SLAB REHEAT FURNACES
03-099208-000	FURNACE 3 REPAIR W/B HYD. LEAK AT FLOW CONTROLS	08HY	080380, HYD SYSTEM, 3 FCE W/BE
03-099229-000	4PL WELDER WEST DIE LIFT CYLINDER, REMOVE BROKEN BOLTS.	09HY	090640, 4PL WELDER
03-099231-000	4PL WELDER, REPAIR HYDRAULIC LEAK ON 2" WELDED ELBOW.	09HY	090640, 4PL WELDER
03-099252-000	TANDEM MILL REMOVE 1-3-4 STAND BACKUPS	09HY	090989, 2TM BACKUPS
03-099258-000	F5 MILL SERVICE SPINDLE INSTILLATION	08HY	083500, MILL, F5
03-099267-000	DOWNCOILER 1 ASSIST CHANGING RETRACT CYLINDER.	08HY	084100, DOWNCOILER 1
03-099275-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-099312-000	4PL ENTRY DOWNENDER TILT CYLINDER, REPAIR PACKING LEAK.	09HY	090610, 4PL DOWNENDER
03-099326-000	3PL WELDER CHANGE 2 AND 3 HYDRAULIC ACCUMULATORS	09HY	090335, 3PL WELDER
03-099669-000	TANDEM MILL 1 STAND BACKUP CHANGE, GREASE SLED	09HY	090989, 2TM BACKUPS
03-100166-000	TANDEM MILL ROLL BALANCE LEAK INSPECTION	09HY	091002, 2TM ROLL BALANCE HYD
03-100167-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL M
03-100168-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL
03-100169-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL
03-100170-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN

WORK_ORDER_NO	WO_DESC	USER_CODE	ASSET_NAME
03-100171-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100172-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100173-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100174-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100175-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100176-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100177-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100178-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100179-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100180-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100181-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100182-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100183-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100184-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100185-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100186-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100187-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100188-000	4PL UNCOILER MANDREL POWER TRACK MOUNTING - TIGHTEN BOLTS	09HY	090621, 4PL UNCOILER MANDREL
03-100189-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100190-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100191-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100193-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100194-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100195-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-100196-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100197-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100198-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100199-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100200-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100201-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100202-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-100203-000	TANDEM MILL AUX & ROLL BALANCE HYD PUMP STRAINER INSPECTION AND CLEANING	09HY	091000, 2TM HYDRAULIC SYSTEM
03-100204-000	TANDEM MILL ROLL FORCE HYDRAULIC SYSTEM CHANGE ALL HYDRAULIC FILTERS	09HY	091040, 2TM ROLL FORCE SYS
03-100205-000	4PL HYDRAULIC CYLINDER INSPECTION FROM ENTRY MANDREL TO TEMPER MILLS	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-100206-000	1PL INSP HYD HOSES ON THE UNCOILER	09HY	090020, 1PL UNCOILER
03-100207-000	4PL ASKAINIA HYDRAULIC FILTER CHANGE/CLEAN	09HY	090800, 4PL ASKANIA
03-100208-000	TANDEM MILL BACKUPS SPARE PARTS INVENTORY #3 SHIFT MONDAY	09HY	090989, 2TM BACKUPS
03-100209-000	4PL ENTRY AND WELDER HYDRAULIC PUMP AND VALVE STAND INSPECTION	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-100210-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100211-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100212-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100213-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100214-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100215-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100216-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-100702-000	FINISH MILL RAIL LIFT HYDRAULIC CYLINDER INSPECTION	08HY	083000, FINISH MILL
03-100703-000	LAMINAR SPRAY HYD SYSTEM CHANGE RETURN LINE FILTER ELEMENTS. CLEAN SUCTION LINE STRAINER ON PUMP A-B-C	08HY	086360, HYD SYSTEM, LAMINAR SP
03-100730-000	ROUGHING MILL ROLL BALANCE HYDRAULIC SYSTEM (S) INSPECTION	08HY	086320, HYDRAULIC SYSTEM, S
03-100742-000	KERRY ACTUATOR 5, INSPECT OIL LEVEL ON HEAT RETENTION HOOD.	08HY	081555, 5 COVER, DELAY TABLE
03-100743-000	KERRY ACTUATOR 4, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081545, 4 COVER, DELAY TABLE
03-100744-000	KERRY ACTUATOR 0, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081505, 0 COVER, DELAY TABLE
03-100745-000	KERRY ACTUATOR 3, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081535, 3 COVER, DELAY TABLE
03-100746-000	KERRY ACTUATOR 2, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081525, 2 COVER, DELAY TABLE
03-100747-000	KERRY ACTUATOR 1, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081515, 1 COVER, DELAY TABLE

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03-100757-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100763-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100764-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100765-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100766-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100767-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100768-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100769-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100771-000	START UP HYDRAULIC SYSTEMS	08HY	086300, HYDRAULIC SYSTEMS
03-100772-000	KERRY ACTUATOR 7, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081575, 7 COVER, DELAY TABLE
03-100773-000	KERRY ACTUATOR 6, INSPECT OIL LEVEL ON HEAT RETENTION HOOD	08HY	081565, 6 COVER, DELAY TABLE
03-100784-000	RM AND FM INSPECT WORK ROLL BALANCE HOSES	08HY	086300, HYDRAULIC SYSTEMS
03-100814-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100815-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100816-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100817-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100818-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100819-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100820-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100854-000	ROUGHING MILL BACKUP ROLL CHANGE HYDRAULIC PUMP SELECTION	08HY	086320, HYDRAULIC SYSTEM, S
03-100855-000	FINISH MILL BACKUP ROLL CHANGE HYDRAULIC PUMP SELECTION	08HY	086330, HYDRAULIC SYSTEM, T
03-100891-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100892-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100893-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100894-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100895-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100896-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-100897-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-101010-000	DAILY HYDRUALIC REPAIR FLUID CHECK LIST	04HY	040001, BOF BUILDING
03-101042-000	HYDRAULIC AND DIESEL TANK MONTHLY LEAK INSPECTION	04HY	040001, BOF BUILDING
03-101246-000	TANDEM MILL BELT WRAPPER, REPAIR HYD LEAK ON TRAVERSE CYL. PIPING.	09HY	090955, 2TM BELT WRAPPER
03-101301-000	2 T/M BELTWRAPPER, CHANGEOUT EAST TUCKARM CYLINDER.	09HY	090955, 2TM BELT WRAPPER
03-101323-000	1SP CHANGE BACKUPS	09HY	092440, 1SP BACK UP ROLLS
03-101365-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-101381-000	1SP BELTWRAPPER REPAIR HYD. LEAK AT # 4 PUMP SHUT OFF VALVE.	09HY	092457, 1SP BELT WRAPPER
03-101383-000	1SP ENTRY VALVE STAND REPAIR HYDRAULIC LEAK.	09HY	092500, 1SP HYDRAULIC SYSTEM
03-101384-000	1SP ENTRY, REPAIR HYDRAULIC LEAK AT # 2 PUMP.	09HY	092500, 1SP HYDRAULIC SYSTEM
03-101385-000	1SP ENTRY, REPAIR HYD. LEAK AT # 4 PUMP FILTER HOUSING.	09HY	092500, 1SP HYDRAULIC SYSTEM
03-101386-000	1SP ENTRY TRAVERSE CYLINDER, REPAIR HYDRAULIC LEAK.	09HY	092415, 1SP ENTRY COIL CAR
03-101424-000	STRAND 1-2-3 CHECK HYDRAULIC OIL LEVELS AND GREASE BARRELS	06HY	066094, HYD SYSTEM DEBURR
03-101432-000	TANDEM MILL 3 STAND BACKUPS, CHANGE ROLLS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-101714-000	TANDEM MILL CHANGE 4 STAND BACKUPS AND GREASE SLEDS	09HY	090989, 2TM BACKUPS
03-101743-000	TANDEM MILL 2 STAND CHANGE BACKUPS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-102228-000	TANDEM MILL ROLL BALANCE LEAK INSPECTION	09HY	091002, 2TM ROLL BALANCE HYD
03-102229-000	1PL WELD INSP & REPAIR LISTED CYL. CHECK & TIGHTEN ALL BOLTS.	09HY	090035, 1PL WELDER
03-102230-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102231-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102232-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102233-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102234-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102236-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102237-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102238-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102239-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102240-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102243-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 2 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102244-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102245-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102246-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102247-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MA
03-102250-000	HYDRAULIC DAILY EMPTY VAT REMOVAL AND FILL 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MA
03-102251-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN

WORK ORDER NO	WO DESC	USER CODE	ASSET NAME
03-102252-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102253-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102254-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102255-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN
03-102258-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102259-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102260-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102261-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102264-000	SOUTH END OIL TANK LEVEL CHECKS, PICKLE LINES, 3 SHIFT	09HY	09PLGM, PICKLE LINE GEN MAINT
03-102265-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102266-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102267-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102268-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102271-000	NORTH END OIL TANK LEVEL CHECKS, SLITTERS AND PICKLE LINES, 2 SHIFT	09HY	09GM, COLD MILL GENERAL MAINT
03-102273-000	TANDEM MILL AUX & ROLL BALANCE HYD PUMP STRAINER INSPECTION AND CLEANING	09HY	091000, 2TM HYDRAULIC SYSTEM
03-102274-000	3PL INSP HYD HOSES ON THE UNC.	09HY	090320, 3PL UNCOILER
03-102275-000	RW PUMP FILTERS AND STRAINER INSPECTIONS	09HY	093090, RW HYDRAULIC SYSTEM
03-102276-000	4PL HYDRAULIC CYLINDER INSPECTION FROM DOWNENDER TO COIL PEELER RUNTURN	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-102277-000	4PL HYDRAULIC CYLINDER INSPECTION - STRIP STEERING/SO.UPCOILER LIFT	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-102278-000	3PL WELDER HYDRAULIC LEAK INSPECTION INCLUDES FLASHTRIMMER	09HY	090335, 3PL WELDER
03-102764-000	INVENTORY FINISH MILL HYDRAULIC ROLL BALANCE PARTS	08HY	083000, FINISH MILL
03-102800-000	FINISH MILL RAIL LIFT HYDRAULIC CYLINDER INSPECTION	08HY	083000, FINISH MILL
03-102887-000	INVENTORY ROUGHING MILL HYDRAULIC ROLL BALANCE PARTS	08HY	082000, ROUGHING MILL
03-102889-000	WEEKLY INVENTORY OF HYDRAULIC VALVES	08HY	086330, HYDRAULIC SYSTEM, T
03-102909-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102910-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102911-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102912-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102913-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102914-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102915-000	3 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102987-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102988-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102989-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102990-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102991-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102992-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-102993-000	2 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103017-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103018-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103019-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103020-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103021-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103022-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103023-000	1 SHIFT DAILY HYDRAULIC TANK LEVEL INSPECTION	08HY	086300, HYDRAULIC SYSTEMS
03-103026-000	ROUGHING MILL BACKUP ROLL CHANGE HYDRAULIC PUMP SELECTION	08HY	086320, HYDRAULIC SYSTEM, S
03-103027-000	INVENTORY HYDRAULIC HOSES ASSEMBLED	08HY	086300, HYDRAULIC SYSTEMS
03-103028-000	INVENTORY FINISH MILL BACK UP CHOCK ROLL BALANCE CYLINDER PARTS	08HY	082660, CHOCKS, BACK UP F1/F7
03-103030-000	INVENTORY HYDRAULIC FILTER ELEMENTS	08HY	086300, HYDRAULIC SYSTEMS
03-103321-000	TANDEM MILL 3 STAND BACKUPS, CHANGE ROLLS, GREASE SLED	09HY	090989, 2TM BACKUPS
03-103377-000	1 S/P CHANGE B/U'S	09HY	092440, 1SP BACK UP ROLLS
03-103421-000	4 P/L ENTRY, REPAIR HYDRAULIC LEAK ON PRESSURE HEADER.	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-103445-000	4 P/L ENTRY NORTH COIL CAR LIFT GATE VALVE, REPAIR PACKING LEAK.	09HY	090845, 4PL HYDRAULIC SYSTEMS
03-104226-000	TANDEM MILL ROLL BALANCE LEAK INSPECTION	09HY	091002, 2TM ROLL BALANCE HYD
03-104227-000	1PL WELD CHANGE FILTERS ON PLATEN &THE MAIN HYD SYSTEMS	09HY	090035, 1PL WELDER
03-104228-000	COLD MILL OIL TANK LEVEL CHECK Z-SECTION 1 SHIFT	09HY	09ZGM, Z-SECTION GENERAL MAIN

21 Dec 2003 15:30:00 *** Minor Work Order *** WO No: 03-103377-000 (R)
Page 1

Originator :
REPLACEMENT
Requester : BILL WORTHEN
Planner : SPEARS, MARY
Reference :
GL Code Combo : 056940.0000003684.RSCOM

Start Date:

Shutdown : YES
Parts Reqd: No
Area Code : 091SP

Action Code: PART

Priority : 8
Project No :
Date Reqrd : 12/21/2003
Late Date :

OK

Description: 1 S/P CHANGE B/U'S

Asset : 092440, 1SP BACK UP ROLLS Revision No: 0
Asset/Cat : 000000000092440 MECH ROLL, BACK UP
Location :

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	09M3	09HY		2	4.00

1 S/P CHANGE B/U'S

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]	12/21/03	7158	4	[ ]				[ ]
			[ ]	12/21/03	6087	4	[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1046055) * * *

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 6087 Signature: [signature] Date: 12/21/03 Reconciliation: ___
Failure: ___
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

inator : REPORT, ADMIN
ester : SPEARS, MARY
Planner : SPEARS, MARY
Reference :
GL Code Combo : 056570.0000003651.RSCON

Start Date: 2003/12/14
Shutdown : YES
Parts Reqd: No
Area Code : 091PL

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 2003/12/13
Late Date :

Text ID: Insp 0000000090020*920

Description: 1PL INSP HYD HOSES ON THE UNCOILER

Asset : 090020, 1PL UNCOILER Revision No: 0
Asset/Cat : 000000000090020 HYD UNCOILER, COIL
Location :

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	09M2	09HY	2003/12/14	2	8.00

FACILITY : COLD MILL *** JOB #7564 *** 090015L ***
TITLE : PROCEDURE (SAFETY LOCKOUT):#1 P/L SOUTH ENTRY SECTION
APPLICATION: #1 PICKLE LINE, COILCAR TRAVERSE/HOIST/TILT ROLL,ALL
TRADE
AUTHOR : DAVE JOHNSON
EQUIPMENT #: 090015
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WHERE:

1. LOCATED IN THE #1 P/L SOUTH ENTRY CONTROL ROOM (A) AT COLUMN J-32 EAST FLOOR LEVEL.
2. THE HYDRAULIC PUMPS ARE LOCATED SOUTH OF CONTROL ROOM AT J-28, J-29 EAST.

NEEDS:

1. AN ELECTRICIAN.
2. ONE HYDRAULIC PERSON.
3. SEVEN SAFETY LOCKS. (FOR COMPLETE LOCKOUT OF ENTRY HYDRAULIC SYSTEM).

HOW:

1. (NOTE: SWITCH ON UNCOILER OPERATORS BENCH BOARD IDENTIFIED AS "HYDRAULIC PUMPS", ONLY SHUTS OFF STARTERS FOR PUMPS.
1. THE HYDRAULIC PERSON CAN ISOLATE EACH VALVE AT THE HYDRAULIC PUMP STAND IF NEEDED.
2. SHUT OFF EACH BREAKER IN CONTROL ROOM AND APPLY SAFETY LOCKS.

NOTE: Indicate any remarks or comments on the reverse side.
pleted by Emp#: 4310 Signature: [signature] Date: 12-4-03 Reconciliation: ___ Failure
epted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

11 Dec 2003 17:16:39 *** Inspection Work Order *** WO No: 03-100206-000 (R) Page 1

Asset : 090020, 1PL UNCOILER Revision No: 0
Asset/Cat : 000000000090020 HYD UNCOILER, COIL

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hrs

ALWAYS VERIFY THAT POWER SOURCE IS OFF _ TEST EQUIPMENT

CAUTIONS OR SPECIAL NOTES LISTED HERE:

1. CONFINED SPACE ENTRY PERMIT IS REQUIRED FOR UNCOILER PIT, REFER TO CONFINED SPACE SAFE ENTRY PROCEDURE (#090020C).
2. BE SURE ALL LINE OPERATIONS HAVE STOPPED PRIOR TO DISCONNECTING ANY POWER SOURCE.
3. AN ELECTRICIAN IS NEEDED FOR PLACEMENT AND REMOVAL OF SAFETY LOCKS IN PANELS AND CONTROL ROOMS.
4. AN ELECTRICIAN IS NEEDED TO RESTORE POWER TO ABOVE UNIT.
5. POSITION EQUIPMENT BEFORE SHUTTING OFF HYDRAULIC SYSTEM.
6. RELEASE STORED ENERGY PRIOR TO SERVICING EQUIPMENT.
7. ADDITIONAL LOCKOUT PROCEDURES MAY BE REQUIRED, REFER TO PROCEDURES: ADDITIONAL SAFETY LOCKS MAY BE REQUIRED.
   A. UNCOILER, PROCESSOR (#090020L).
   B. V-TROUGH CONVEYOR (#090011L).
   C. SOUTH ENTRY HYDRAULICS (#090160L).
   D. COIL PUSHER (#090012L).

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1041975) * * *

11 Dec 2003 15:59:25 *** Routine Work Order *** WO No: 03-099326-000 (R) Page 1

ginator	: SPEARS, MARY	Start Date: 2003/12/13	Action Code: PART REPLACEMENT
uester	: MARY SPEARS	Shutdown : YES	Priority : 4
anner	: SPEARS, MARY	Parts Reqd: No	Project No :
Reference	:	Area Code : 093PL	Date Reqrd :
GL Code Combo	: 056640.0000003653.RSCOM		Late Date :

Description: 3PL WELDER CHANGE 2 AND 3 HYDRAULIC ACCUMULATORS

O.K.

Asset : 090335, 3PL WELDER Revision No: 0
Asset/Cat : 000000000090335 HYD WELDER, PROCESS
Location :

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1	09M2	09HY	2003/12/13	2	10.00

3 P/L WELDER, CHANGEOUT #2 AND #3 HYDRAULIC ACCUMULATORS. ONE HAS A BAD SCHRADER VALVE AND THE OTHER WON'T HOLD A CHARGE. CHARGE EACH ACCUMULATOR TO 500 PSI.

-- RECORD TIME DAILY --

e	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
14/03	0399		[ ]				[ ]				[ ]
12/13	6089		[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

Began

* * * End of Report (1041935) * * *

Changed both

Not charged

F/U Charge both

6503

12-13-03

NOTE: Indicate any remarks or comments on the reverse side.

Completed by Emp#: _____ Signature _____ Date: _____ Reconciliation: ____ Failure:

Accepted by Emp# : _____ Signature _____ Asset Downtime: _____ Meter Reading: _____

Originator : REPORT, ADMIN
Requester : SPEARS, MARY
Planner : SPEARS, MARY
Reference :
GL Code Combo : 056850.0000003684.RSCOM

Start Date: 2003/12/14
Shutdown : YES
Parts Reqd: No
Area Code : 091SP

Action Code: INSPECTION
Priority : 4
Project No :
Date Reqrd : 2003/12/07
Late Date :

Text ID: Insp 000000000092500*920

Description: 1SP HYDRAULIC CYLINDER AND VALVE STAND INSPECTION

Asset : 092500, 1SP HYDRAULIC SYSTEM Revision No: 0
Asset/Cat : 000000000092500 HYD SYSTEM, HYDRAULIC
Location :

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	09M2	09HY	2003/12/14	2	2.00

FACILITY : COLD MILL JOB# 156 ** 1SPHYDCY **
TITLE : PROCEDURE FOR HYDRAULIC CYLINDER INSPECTION
APPLICATION: 1 SKIN PASS, HYD. CYLINDERS,HYDRAULIC
AUTHOR : BOB ASFOUR
EQUIPMENT #: 092500
DO NOT COPY THIS DOCUMENT. COPIES MUST BE REPRINTED FROM CAMS ONLY!!! RETURN THIS COPY TO YOUR SUPERVISOR WHEN COMPLETE.
PURPOSE OF PROCEDURE: TO DEFINE THE PROCEDURE USED TO INSPECT HYD. CYLINDERS ON A DOWNTURN.
TOTAL JOB HOURS: 2 TOTAL NUMBER OF TRADE: 2
TRADES REQUIRED: M/M ___ HYD _X_ WELD ___ RIG ___ P/F ___
TOOLS REQUIRED:
1. FLASHLIGHT 2. RAGS
3. ROD (TO SHIFT VALVES) 4. _____

**NOTE: PLEASE AUDIT PROCEDURE WHILE PERFORMING THE JOB, IF CHANGES ARE NECESSARY WRITE IN COMMENT SECTION OR REFER TO BACK PAGE.

********** DOWNTURN INSPECTION:**********

1. DOWNENDER TILT CYLINDER: (NORTH)
(A) CYLINDER MOUNT ~~OK~~ OK ; (C) PIPING: ~~OK~~ OK ;
(B) ROD END: ~~OK~~ OK (D) HOSES: OK ;
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION: _____ ;

2. DOWNENDER TILT CYLINDER: (SOUTH)
(A) CYLINDER MOUNT OK ; (C) PIPING: ~~OK~~ OK ;
(B) ROD END: OK (D) HOSES: OK ;
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION: _____ ;

STARTED P/C PIT full of BAD

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 4340 Signature: [signature] Date: 12-14-03 Reconciliation: ___ Failure
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: ___

KM

St : 092500, 1SP HYDRAULIC SYSTEM Revision No: 0
St/Cat : 000000000092500 HYD SYSTEM, HYDRAULIC

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hrs

3. DOWNENDER SLIDE CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

4. ENTRY COIL CAR TRAVERSE CYLINDER
(A) CYLINDER MOUNT: : (C) PIPING: :
(B) ROD END: : (D) HOSES: :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

COVERED BY BANDS

5. ENTRY COIL CAR HOIST CYLINDER #78-76-708
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

6. SLIDING SAFETY PLATE CYLINDER:
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

7. ASKANIA CYLINDER
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

8. ENTRY REEL EXPAND CYLINDER:
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

9. SHEAR CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

10. EXIT COIL CAR TRAVERSE CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :

COVERED

Asset : 092500, 1SP HYDRAULIC SYSTEM Revision No: 0
Asset/Cat : 000000000092500 HYD SYSTEM, HYDRAULIC

DESCRIPTION

Step Crew Craft Schedule Date Persons Hrs

(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

11. EXIT COIL CAR HOIST CYLINDER:
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

12. EXIT REEL EXPAND CYLINDER:
(A) CYLINDER MOUNT OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

13. SCALE CYLINDER:
NOTE:: KEY FOR THE BLUE CONTROL ROOM WHERE THE SCALE UP/DOWN PUSHBUTTONS ARE LOCATED IS IN THE ELECTRICAL SUPERVISORS KEY CABINET; KEY #18.
(A) CYLINDER MOUNT: OK : (C) PIPING: OK :
(B) ROD END: OK : (D) HOSES: OK :
(E) TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK:

14. BELT WRAPPER:
(A) POWER TRACK: OK : (C) PUMPS: OK :
(B) CYLINDER: OK : (D) VALVES: OK :
(E) ACCUMULATOR: OK :

: 092500, 1SP HYDRAULIC SYSTEM Revision No: 0
et/Cat : 000000000092500 HYD SYSTEM, HYDRAULIC

DESCRIPTION

Step Crew Craft Schedule Date Persons Hrs

15. INSPECT VALVES, PIPING, HOSES & BRACKETS FOR LEAKS ON THE FOLLOWING HYDRAULIC CIRCUITS. TAG ALL LEAKS WITH A WRITTEN DESCRIPTION OF LEAK ON TAG. RECORD TAG NUMBERS NEXT TO APPROPRIATE CIRCUIT:

(A) ENTRY COIL CAR TRAVERSE CIRCUIT: OK
(B) ENTRY COIL CAR HOIST CIRCUIT: OK
(C) DOWNENDER TILT CIRCUIT: OK
(D) DOWNENDER SLIDE CIRCUIT: OK
(E) SHEAR CIRCUIT: OK
(F) EXIT COIL CAR TRAVERSE CIRCUIT: OK
(G) EXIT COIL CAR HOIST CIRCUIT: OK
(H) SCALE CIRCUIT: OK
(I) ENTRY REEL EXPAND CIRCUIT OK
(J) EXIT REEL EXPAND CIRCUIT OK
(K) ROLL BENDER CIRCUIT OK
(3/8' X 60' HYD HOSE #06-52-455)
(L) ROLL BALANCE CIRCUIT (B/UPS, W/ROLLS & JACKS) OK
(M) ASKANIA CIRCUIT: OK
(N) BELT WRAPPER SYSTEM: OK

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1041984) * * *

THE SLIN PASS BASEMENT is NOT BEING KEPT CLEAN. CARPET, PAPER, FULL GARBAGE CANS KNOCKED OVER BANDS, JUNK THROUT. HARD TO WALK AROUND

OK Darling / Bullock

12 Jan 2004 09:57:46 *** Routine Work Order *** WO No: 04-002528-000 (R)
Page 1

Originator : HAVICAN, THOMAS
MAINTENANCE
Requester : THOMAS HAVICAN
Planner : HAVICAN, THOMAS
Reference :
GL Code Combo : 070180.0000002550.RSCOM

Start Date :
Shutdown : YES
Parts Reqd: No
Area Code : 06

Action Code: ROUTINE
Priority : 5
Project No :
Date Reqrd :
Late Date :

Closed 1-13-04

Description: STRAND 1 HYDRAULIC SYSTEM, INSTALL KIDNEY PUMP

Asset : 061339, HYDRAULIC SYSTEM 1 Revision No: 0
Asset/Cat : 000000000061339 HYD SYSTEM, HYDRAULIC
Reading: 28649.00 Last Meter
Location :
: 01/12/2004 Last Reading Date

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M		2	4.00

STRAND 1 HYDRAULIC SYSTEM, INSTALL KIDNEY PUMP

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1055111) * * *

DONE

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 0251 Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : 9116 Signature: _____ Asset Downtime: _____ Meter Reading: _____

RSC1203IR#3-0014

OK Hobson/Blaise
Closed 1-8-04

06 Jan 2004 09:03:34 *** Inspection Work Order *** WO No: 04-002131-000 (R)
Page 1

Originator : HAVICAN, THOMAS
Requester : NEWSOME, RAY
Planner : NEWSOME, RAY
Reference :
GL Code Combo : 070180.0000002550.RSCOM

Start Date: 01/06/2004
Shutdown : PROCESS SHUTDO
Parts Reqd: No
Area Code : 06

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 01/07/2004
Late Date : 01/08/2004

000000000061339*62340 Text ID: Insp
Description: STRAND 1 HYDRAULIC SYSTEM INSPECTION, MONTHLY, 061300-061339 061339L1 IN339-1

Asset : 061339, HYDRAULIC SYSTEM 1 Revision No: 0
Asset/Cat : 000000000061339 HYD SYSTEM, HYDRAULIC
Reading: 28555.00 Last Meter
Location :
: 01/06/2004 Last Reading Date

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M	01/06/2004	2	4.00

CODE	
	** INSPECTION **
	1. CHECK FOR PROPER TEMPERATURE OF HYDRAULIC FLUID. (HIGH TEMP.70% C OR158% F-LOW TEMP.115% C OR 59%F)
	2. CHECK OIL LEVEL IN RESERVOIR TANK AND FILL WITH M6C21A IF NEEDED
	3. CHECK ACCUMULATOR FOR GAS CHARGING PRESSURE (ADJUST IF NECESSARY ADJUSTMENT IS 115-120 KG/CM2.
	4. CHECK FOR LEAKAGE OF PIPE FLANGES AND HOSES, ETC.
	5. CHECK FOR ABNORMAL TEMPERATURE IN HYDRAULIC PUMP AND MOTOR CASING.PERMISSIBLE TEMPERATURE (L2 AND SCREW TYPE IS 80% C).
	6. CHECK FILTERS FOR CLOGGING BY THE INDICATORS.

BLUEPRINT FOR USE ARE MM-1224____ SERIES

PAGE]

ITLE : HYD. SYSTEM #1 LOCK OUT PROCEDURE MAIN HYD.ROOM
EQ#/NAME : 061300-061339

WHAT: HYDRAULIC SYSTEM #1 PUMP #1
WHERE: MCC 13 133B WEST OF MAIN HYDRAULIC PUMP ROOM
HOW: STARTER DISCONNECT

WHAT: HYDRAULIC SYSTEM #1 PUMP #2
WHERE: MCC 13 133C WEST OF MAIN HYDRAULIC PUMP ROOM
HOW: STARTER DISCONNECT

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 1166 Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : 1166 Signature: _____ Asset Downtime: _____ Meter
Reading: 28557

07 Jan 2004 00:00:49 *** Routine Work Order *** WO No: 04-002127-000 (I)
Page 1

Originator : HAVICAN, THOMAS Start Date: Action Code: ROUTINE MAINTENANCE
Requester : THOMAS HAVICAN Shutdown : YES Priority : 5
Planner : HAVICAN, THOMAS Parts Reqd: No Project No :
Reference : Area Code : 06 Date Reqd :
GL Code Combo : 070180.0000002550.RSCOM Late Date :

Description: HYDRAULIC SYSTEM 1 CHANGE ALL HYDRAULIC FILTERS ON 8 METER DECK AND BOTH TUNDISH CARS

Asset : 061339, HYDRAULIC SYSTEM 1 Revision No: 0
Asset/Cat : 000000000061339 HYD SYSTEM, HYDRAULIC Last Meter Reading: 28560.00
Location : Last Reading Date : 01/06/2004

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M		2	8.00

CHANGE ALL HYDRAULIC FILTERS ON 8 METER DECK AND BOTH TUNDISH CARS

FACILITY: CONTINUOUS CASTER
TITLE: LOCK OUT PROCEDURE
APPLICATION: CON CAST MECH. MAINT. DEPARTMENT

ALL DISCONNECTS FOR ELECTRICAL POWER LOCKOUTS ON #1 TUNDISH CAR LOCATED AT MCC 14. THESE LOCKOUT POINTS WILL UTILIZE DESIGNATED EQUIPMENT LOCKS.

WHAT: CONTROL POWER, PULLING DISCONNECT WILL SHUT DOWN COMMON PLC!!!
WHERE: 8 METER DECK - SOUTH OF #1 STRAND
HOW: MCC 14 - DISCONNECT 144F

WHAT: TUNDISH LIFTING DRIVE #1
WHERE: 8 METER DECK - SOUTH OF #1 STRAND
HOW: MCC 14 - DISCONNECT 141 E

WHAT: TUNDISH LIFTING DRIVE #2
WHERE: 8 METER DECK - SOUTH OF #1 STRAND
HOW: MCC 14 - DISCONNECT 141D

WHAT: TRAVEL DRIVE
WHERE: 8 METER DECK - SOUTH OF STRAND
HOW: MCC 14 - DISCONNECT 141C

WHAT: MOLD LEVEL LIFTING DRIVE #1
WHERE: 8 METER DECK - SOUTH OF #1 STRAND
HOW: MCC 14 - DISCONNECT 146B

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 9116 Signature: DARLING Date: 1-6-04 Reconciliation: ____
Failure: ____
Accepted by Emp# : 5717 Signature: Coll Meter
Reading: _____ Asset Downtime: _____

RSC1203IR#3-0016

OK TH Hobson / Blaise

06 Jan 2004 09:04:21 *** Inspection Work Order *** WO No: 04-002132-000 (R)
Page 1

Originator : HAVICAN, THOMAS
Requester : NEWSOME, RAY
Planner : NEWSOME, RAY
Reference :
GL Code Combo : 070190.0000002550.RSCOM

Start Date: 01/06/2004
Shutdown : NO
Parts Reqd: No
Area Code : 06

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 01/07/2004
Late Date : 01/08/2004

Closed 1-8-04

Text ID: Insp

000000000061340*62341
Description: STRAND 2 HYDRAULIC SYSTEM MONTHLY INSPECTION

Asset : 061340, HYDRAULIC SYSTEM 2 Revision No: 0
Asset/Cat : 000000000061340 HYD SYSTEM, HYDRAULIC
Reading: 28508.00 Last Meter
Location :
: 01/06/2004 Last Reading Date

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M	01/06/2004	2	4.00

CONDITION CODE #1==> OK #3==> IMMEDIATE ATTENTION
#2==> SCHEDULE #4==> UNABLE TO DETERMINE

{CODE}	** INSPECTION **
____	1. CHECK FOR PROPER TEMPERATURE OF HYDRAULIC FLUID. (HIGH TEMP.70% C OR158% F-LOW TEMP.115% C OR 59%F)
____	2. CHECK OIL LEVEL IN RESERVOIR TANK AND FILL WITH M6C21A IF NEEDED
____	3. CHECK ACCUMULATOR FOR GAS CHARGING PRESSURE (ADJUST IF NECESSARY ADJUSTMENT IS 115-120 KG/CM2.
____	4. CHECK FOR LEAKAGE OF PIPE FLANGES AND HOSES, ETC.
____	5. CHECK FOR ABNORMAL TEMPERATURE IN HYDRAULIC PUMP AND MOTOR CASING.PERMISSIBLE TEMPERATURE (L2 AND SCREW TYPE IS 80% C).
____	6. CHECK FILTERS FOR CLOGGING BY THE INDICATORS.

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: _____ Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

06 Jan 2004 11:54:47 *** Inspection Work Order *** WO No: 04-000794-000 (R)
Page 1

Originator : REPORT, ADMIN
Requester : NEWSOME, RAY
Planner : NEWSOME, RAY
Reference :
GL Code Combo : 070360.0000002540.RSCOM

Start Date: 01/12/2004
Shutdown : YES
Parts Reqd : No
Area Code : 062

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 01/17/2004
Late Date : 01/21/2004

OK
1-8-04

000000000061056*6256
Text ID: Insp
Description: STRAND 2 TUNDISH PREHEATER, CHANGE HYDRAULIC FILTERS

Asset : 061056, TUNDISH PREHEATER 2 Revision No: 0
Asset/Cat : 000000000061056 HYD PREHEATER, TUNDISH
Location :

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M	01/12/2004	2	2.00

STRAND 2 TUNDISH PREHEATER, CHANGE HYDRAULIC FILTERS

FACILITY : CONTINUOUS CASTER
TITLE : #2 TUNDISH PREHEARTER LOCK OUT PROC.
APPLICATION : CON CAST MECH. MAINT. DEPARTMENT
AUTHOR : W.D.MILLER
EQ#/NAME : 061000-061056
DO NOT COPY THIS DOCUMENT. COPIES MUST BE REPRINTED FROM CAMS ONLY.
RETURN THIS COPY TO YOUR SUPERVISER WHEN COMPLETE.
WHAT: TUNDISH PREHEATER #2

WHERE: NORTHEAST CORNER OF 12 METER DECK

HOW: DISCONNECT - MAIN

==========

WHAT: TUNDISH PREHEATER #2 - BLOWER MOTOR

WHERE: NORTHEAST CORNER OF 12 METER DECK

HOW: DISCONNECT - BLOWER MOTOR

==========

WHAT: TUNDISH PREHEATER #2 - HYDRAULIC LIFT

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 0351 Signature: AJR Date: 1-7-04 Reconciliation: ____
Failure: ____
Accepted by Emp# : 0241 Signature: [signature] Asset Downtime: _____ Meter Reading: _____

06 Jan 2004 12:03:36 *** Routine Work Order *** WO No: 04-002157-000 (R)
Page 1

Originator : HAVICAN, THOMAS
MAINTENANCE
Requester : THOMAS HAVICAN
Planner : HAVICAN, THOMAS
Reference :
GL Code Combo : 070190.0000002550.RSCOM

Start Date:
Shutdown : YES
Parts Reqd: No
Area Code : 06

Action Code: ROUTINE
Priority : 5
Project No :
Date Reqrd : 01/07/2004
Late Date :

OK FH
Closed
1-8-04

Description: STRAND 2 HYDRAULIC SYSTEM, INSTALLFILTER KIDNEY PUMP

Asset : 061340, HYDRAULIC SYSTEM 2 Revision No: 0
Asset/Cat : 000000000061340 HYD SYSTEM, HYDRAULIC
Reading: 28508.00 Last Meter
Location :
: 01/06/2004 Last Reading Date

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M		2	4.00

STRAND 2 HYDRAULIC SYSTEM, INSTALLFILTER KIDNEY PUMP

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1052019) * * *

1-6-04

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: _____ Signature: _____ Date: _____ Reconciliation: ____
Failure: ____
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter
Reading: _____

OK

06 Jan 2004 11:54:45 *** Inspection Work Order *** WO No: 04-000792-000 (R)
Page 1

Originator : REPORT, ADMIN
Requester : NEWSOME, RAY
Planner : NEWSOME, RAY
Reference :
GL Code Combo : 070360.0000002540.RSCOM

Start Date: 01/12/2004
Shutdown : YES
Parts Reqd: No
Area Code : 06

Action Code: INSPECTION
Priority : 2
Project No :
Date Reqrd : 01/17/2004
Late Date : 01/21/2004

Closed 1-8-04

000000000061055*6255
Text ID: Insp
Description: STRAND 1 TUNDISH PREHEATER, CHANGE HYDRAULIC FILTERS
FILTER S6858213

Asset : 061055, TUNDISH PREHEATER 1 Revision No: 0
Asset/Cat : 000000000061055 HYD PREHEATER, TUNDISH
Location :

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1	06M2	06M	01/12/2004	2	2.00

STRAND 1 TUNDISH PREHEATER, CHANGE HYDRAULIC FILTERS

FACILITY : CONTINUOUS CASTER
TITLE : #1 TUNDISH PREHEATER LOCKOUT PROC.
APPLICATION : CON CAST MECH. MAINT. DEPARTMENT
AUTHOR : W.D.MILLER
EQ#/NAME : 061000-061055
DO NOT COPY THIS DOCUMENT. COPIES MUST BE REPRINTED FROM CAMS ONLY.
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WHAT: TUNDISH PREHEATER #1

WHERE: SOUTHEAST CORNER OF 12 METER DECK

HOW: DISCONNECT - MAIN

==========

WHAT: TUNDISH PREHEATER #1 - BLOWER MOTOR

WHERE: SOUTHEAST CORNER OF 12 METER DECK

HOW: DISCONNECT - BLOWER MOTOR

==========

WHAT: TUNDISH PREHEATER #1 - HYDRAULIC LIFT

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 0351 Signature: _____ Date: 1-7-04 Reconciliation: ____
Failure: ____
Accepted by Emp# : 0241 Signature: _____ Asset Downtime: _____ Meter Reading: _____

CHRISTIE ✓ Job # 12

09 Jan 2004 13:53:02 *** Repetitive Work Order *** WO No: 04-000614-000 (R)
Page 1

Originator : REPORT, ADMIN
AINTENANCE
Requester : MARSAC, GARTH
Planner : MARSAC, GARTH
Reference :
GL Code Combo : 066950.0000003500.RSCOM

Start Date: 01/10/2004
Shutdown : NO
Parts Reqd: No
Area Code : 083

Action Code: ROUTINE
Priority : 5
Project No :
Date Reqrd : 01/12/2004
Late Date :

000000000086330*82001
Text ID: Rep
Description: FINISH MILL BACKUP ROLL CHANGE HYDRAULIC PUMP SELECTION

Asset : 086330, HYDRAULIC SYSTEM, T Revision No: 0
Asset/Cat : 000000000086330 HYD SYSTEM, HYDRAULIC
Location : FINISH MILL OIL BASEMENT H-47

---------- DESCRIPTION ----------

Step	Crew	Craft	Schedule Date	Persons	Hours
1		08HY	01/10/2004	1	1.00

FACILITY : HOT STRIP MILL *** JOB 954 *** HYDBUFM
TITLE : SELECT HYD. PUMPS- FM B/UP ROLL CHANGE-REPETITIVE
APPLICATION : HYDRAULIC REPAIR
AUTHOR : G. PENDOLINO
EQUIPMENT # : 086330, HYDRAULIC SYSTEM,T

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CHANGE OF BACK UP ROLLS AT THE FINISHING MILL

PRIOR TO ASSISTING IN THE CHANGE OF ROUGHING MILL ROLLS:

A. OBSERVE THE FOLLOWING AT THE ELECTRICAL SELECTION PANEL IN THE ROUGHING MILL OIL BASEMENT AT SYSTEM T.
   1. CONDITIONS PERMITTING, THERE SHOULD BE THREE HYDRAULIC PUMPS. POSITION 1(EAST); POSITION 2(WEST); POSITION 3(AISLEWAY). THE PANEL WILL HAVE A SELECTOR SWITCH FOR ON/OFF POSITION AND A SELECTOR SWITCH FOR HAND, LAG, LEAD FOR EACH PUMP AS LISTED.

B. AT THIS TIME YOU WILL TURN SELECTOR SWITCH WHICH WAS IN LAG POSITION TO LEAD POSITION; ALSO INDICATE THE PUMP NUMBER IN THE SPACE PROVIDED BELOW DURING ROLL CHANGE.

DURING ROLL CHANGE AFTER ROLL CHANGE

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 5043 Signature: C Hupar Date: 1-10-04 Reconciliation: ___
Failure: ___
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter Reading: _____

09 Jan 2004 13:53:02 *** Repetitive Work Order *** WO No: 04-000614-000 (R)
Page 2

Asset : 086330, HYDRAULIC SYSTEM, T Revision No: 0
Asset/Cat : 000000000086330 HYD SYSTEM, HYDRAULIC

DESCRIPTION

Step Crew Craft Schedule Date Persons Hrs

PUMP NO. center LEAD

PUMP NO. north LAG

C. AFTER SWITCHING THE PUMP FROM LAG TO LEAD, A TOTAL OF TWO PUMPS WILL NOW BE IN THE LEAD POSITION. THESE PUMPS ARE TO REMAIN IN THIS POSITION UNTIL THE ROLL CHANGE IS COMPLETE.

D. UPON COMPLETION OF OF ROLL CHANGE, SWITCH ONE OF THE LEAD PUMPS BACK TO THE LAG POSITION AND INDICATE THE PUMP NUMBER IN THE SPACE PROVIDED ABOVE. IF POSSIBLE TRY TO ALTERNATE FROM PREVIOUS LEAD NUMBER TO ELIMINATE A PUMP FROM CONSTANTLY BEING IN THE LEAD POSITION.

THIS SHEET TO BE RETURNED WITH JOB NO. SHEET TO YOUR SUPERVISOR UPON COMPLETION OF THE ROLL CHANGE.

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
1-10-04	7043		[ ]				[ ]				[ ]
	6778		[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1054393) * * *

Christie

Job # 12

09 Jan 2004 13:53:39 *** Inspection Work Order *** WO No: 04-000419-000 (R)
Page 1

Originator : REPORT, ADMIN
Requester : MARSAC, GARTH
Planner : MARSAC, GARTH
Reference :
GL Code Combo : 050410.0000003500.RSCOM

Start Date: 01/10/2004
Shutdown : DOWNTURN
Parts Reqd: No
Area Code : 083

Action Code: INSPECTION
Priority : 4
Project No :
Date Reqrd : 01/12/2004
Late Date :

Text ID: Insp

000000000083000*82007
Description: FINISH MILL RAIL LIFT HYDRAULIC CYLINDER INSPECTION

Asset : 083000, FINISH MILL
Asset/Cat : 000000000083000 HYD
Reading: 8712487.00
Location :
: 01/09/2004

Revision No: 2
PARENT, ROLLUP

Last Meter

Last Reading Date

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1		08HY	01/10/2004	1	2.00

FACILITY : HOT STRIP MILL *** JOB 553 *** HYRLCYL
TITLE : INSPECT HYD. RAIL LIFT CYLS. F/MILL-INSPECTION
APPLICATION : HYDRAULIC REPAIR
AUTHOR : G. PENDOLINO
EQUIPMENT # : 083000, FINISH MILL

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ROUGE STEEL
H O T S T R I P M I L L
HYD. RAIL-LIFT CYL. INSPECTION HYRLCYL

F-1 MILL
A. ROD END NE NW SE Leak SW
B. PIPING NE NW SE OK SW
C. TUBING NE NW SE SW
D. HOSES NE OK NW OK SE SW OK
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

F-2 MILL
A. ROD END NE NW SE SW
B. PIPING NE OK NW OK SE OK SW OK
C. TUBING NE SW

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 7643 Signature: C Ambar Date: 1-10-04 Reconciliation:
Failure:
Accepted by Emp# : Signature: Asset Downtime: Meter
Reading:

Jan 2

09 Jan 2004 13:53:39 *** Inspection Work Order *** WO No: 04-000419-000 (R)
Page 2

Asset : 083000, FINISH MILL Revision No: 2
Asset/Cat : 000000000083000 HYD PARENT, ROLLUP

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hrs

D. HOSES NE NW OK SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

F-3 MILL
A. ROD END NE OK NW OK SE OK SW OK
B. PIPING NE NW SE SW
C. TUBING NE NW SE SW
D. HOSES NE NW SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

F-4 MILL
A. ROD END NE NW SE leak SW
B. PIPING NE NW SE minor SW OK
C. TUBING NE OK NW OK SE SW
D. HOSES NE NW SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

F-5 MILL
A. ROD END NE leak NW SE SW
B. PIPING NE NW OK SE OK SW OK
C. TUBING NE minor NW SE SW
D. HOSES NE NW SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

F-6 MILL
A. ROD END NE OK NW OK SE miss. M SW OK
DA

09 Jan 2004 13:53:39 *** Inspection Work Order *** WO No: 04-000419-000 (R)
Page 3

Asset : 083000, FINISH MILL Revision No: 2
Asset/Cat : 000000000083000 HYD PARENT, ROLLUP

DESCRIPTION
Step Crew Craft Schedule Date Persons Hrs

B. PIPING NE NW SE SW
C. TUBING NE NW SE SW
D. HOSES NE NW SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

F-7 MILL
A. ROD END NE NW SE SW leak
B. PIPING NE NW SE SW minor
C. TUBING NE NW SE SW
D. HOSES NE NW SE SW
E. TAG ALL LEAKS WITH WRITTEN DESCRIPTION OF LEAK ON TAG
LIST TAGGED LEAKS
F. MATERIALS REQUIRED FOR REPAIRS
G. MATERIALS OBTAINED FOR REPAIRS
H. CLEAN UP REQUIRED AT AREA (YES (NO)

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
1-10-04	7048		[ ]				[ ]				[ ]
	6778		[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1054394) * * *

CHRISTIE / JOB # 14

09 Jan 2004 15:15:01 *** Routine Work Order *** WO No: 04-002405-000 (R)
Page 1

Originator : MARSAC, GARTH
MAINTENANCE
Requester : GARTH MARSAC
MAINTENANCE
Planner : MARSAC, GARTH
Reference :
GL Code Combo : 066150.0000003500.RSCOM

Start Date: 01/10/2004
Shutdown : AREA SHUTDOWN
Parts Reqd: No
Area Code : 084

Action Code: ROUTINE
Priority : FACILITY
Project No :
Date Reqrd :
Late Date :

Also LEAK on the #3 N. lift cyl union Replaced Hose & Fittings Need To be Tested

Description: #3 FURNACE SOUTH TRAVERSE CYLINDER. TAG # 26542

Asset : 080380, HYD SYSTEM, 3 FCE W/BE Revision No: 0
Asset/Cat : 000000000080380 HYD SYSTEM, HYDRAULIC
Reading: 2974523.00 Last Meter
Location : FURNACE BASEMENT G-19
: 01/09/2004 Last Reading Date

DESCRIPTION

Step	Crew	Craft	Schedule Date	Persons	Hours
1	08M2	08HY	01/10/2004	2	4.00

ROD END HOSE IS RUBBING ALSO LEAK ON PIPEING FOR BLIND END. LEAK AT NIPPLE BETWEEN BALL VALVE & 90 ELL SIDE AND SAME LINE LEAK AT NIPPLE GOING INTO COUPLING.

-- RECORD TIME DAILY --

Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent	Date	Emp#	Hrs	Ent
1-10	6228	8	[ ]				[ ]				[ ]
1-10	2043	8	[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]
			[ ]				[ ]				[ ]

* * * End of Report (1054582) * * *

Resituated Hose & Replaced 50" Run & Fittings At Both Ends of Elbow Leak Needs to be Tested

NOTE: Indicate any remarks or comments on the reverse side.
Completed by Emp#: 6228 Signature: [signature] Date: 1-10-04 Reconciliation: _ _
Failure: ____
Accepted by Emp# : _____ Signature: _____ Asset Downtime: _____ Meter
Reading: _____

January 24th, 2002 Meeting / Site Visit
w/ Rouge Steel Co.

- See attached Agenda, Attachments / Handouts & Sign In Sheet

- Rouge removes the sludge from sludge ponds at the SRWWTP ≈ every 18 months - 2 years. No removal in 1998 - 2001 until July 2001. Mix lime w/ sludge in pond and deposit in landfill. Analyses?

- Diked Lagoon receives dredged material from primary & secondary lagoon. - Primary dredged in 1999 and then again in summer 2001. Hydraulic Sludge used 10 - 20 % solids.

- H_2O drained from diked lagoon last summer in anticipation of receipt of dredged materials from primary lagoon. H_2O from diked lagoon sent to grit chamber.

- The sludge from diked lagoon was removed this past Summer to make room for material dredged from primary lagoon.

- 1991 Order w/ MDE controls dredging & sludge removal.
- Bottom of primary lagoon "surveyed"? Goal to determine how much oil & grease/solids?
- Food contributes stormwater to SRWWTP → c/b a source via the processes.
- Cold Mill process H_2O goes to SRWWTP all emulsified oil from ~~SRWWTP~~ Cold Mill does not go to ?
- Pickle Line not a source of oil → SRWWTP in terms of process.
- Hot Mill source of oil & grease from bearings & equip. leaks, first to scale pits before ~~going to sump pits~~ to SRWWTP.
- Cont. Caster does not go to SRWWTP Built to trap scale as well as oil.

Jean Williams:

difficulty of finding carcasses in general & on oiled slag. Birds not necess. entrapped before dying.

direct & indirect
toxicity of oils / chemistry

- Rouge does not agree. Oil & grease at Skunk R is not a toxicological problem. Analyses are for all organics / TCL not pest. & herbs.
- Separate call for discussion of insp. logs.
- Rouge changes are perm & continuing deterrent based. Ruchs on second lagoon in Dec 2001. Want to use deterrent.
- Atty FOIA'ed Region 8.
- Our next steps — discuss w/ Braylene & Lisa

3007
- disapprove CEM
- call on logs
- FOIA results
- HQ 3007
- Visit to TOSCO
- analyses → toxicology

AGENDA
JANUARY 24, 2002
10:00 AM

1. Visit to SRWWTP

2. Introduction

3. Description of how the wastewater treatment plant works

   Including: how skimmers work, additives and what they do,
   oil removal and reduction activities, dredging of ponds & lagoons,
   and depositing sludge in the bermed area

4. Summary of the immediate and continuing measures taken by Rouge Steel in response to the Sec. 7003

5. Why the measures taken are not adequate

   Risk of harm to wildlife presented by oil at the facility

6. Options to comply with section 7003

   Netting/Fencing
   Oil Reduction / remediation

7. Future Inspections

Rouge Steel
JAN 24th

Name	ORGAN	Ph.
Gaylene Vasaturo	EPA/ORC	312-886-1811
Don Windeler	Rouge Steel	313 845-8217
Diane Sharrow	EPA/WPTD	312-886-6199
Michael Carlson	MEC Environmental Consultants	248-585-3800
Lisa Williams	U.S Fish & Wildlife Service	517-351-8324
Lan Trinh	Rouge Steel	313-322-4560
Scott Dismukes	Eckert Seamans	412 566-1998

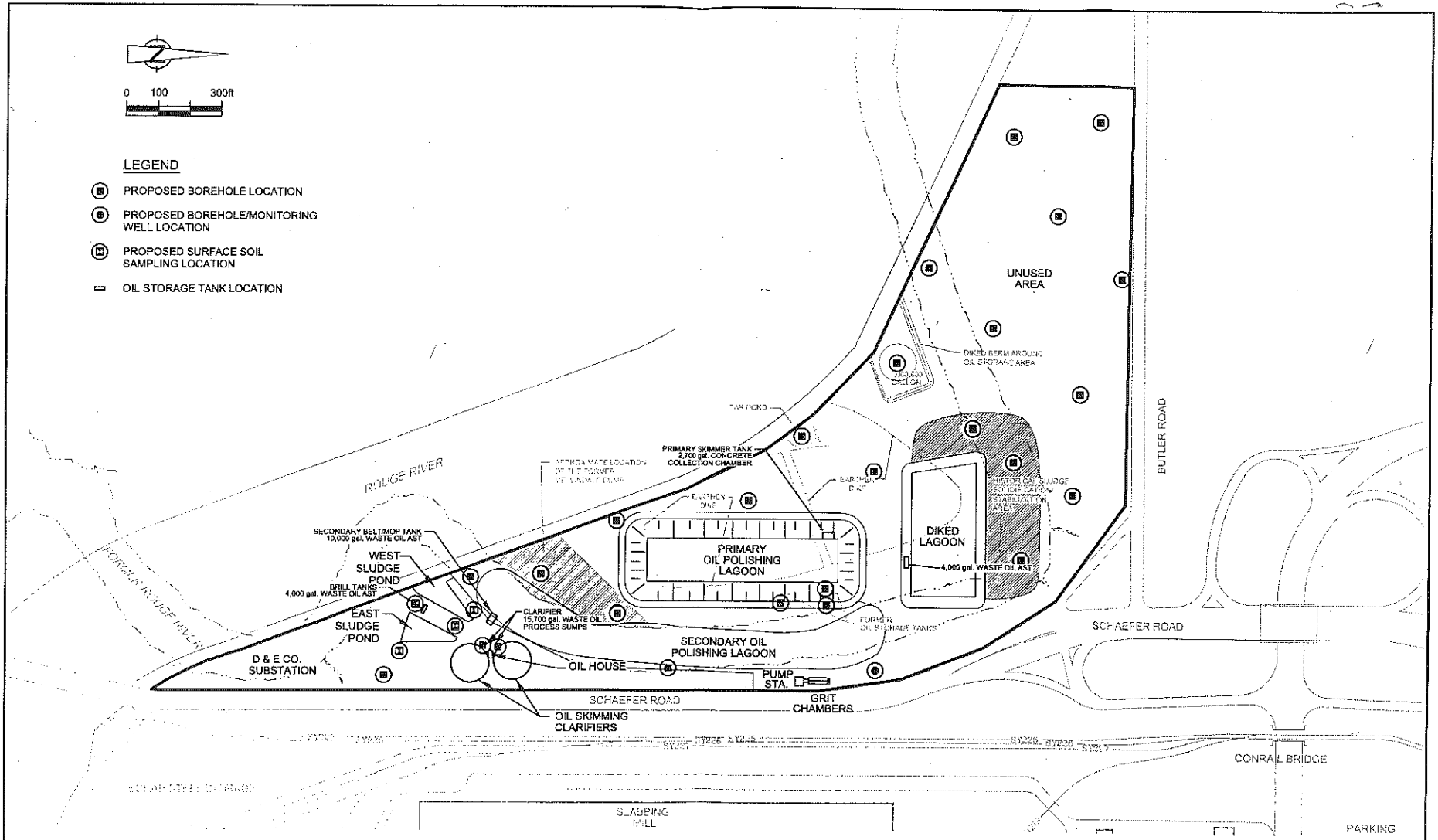
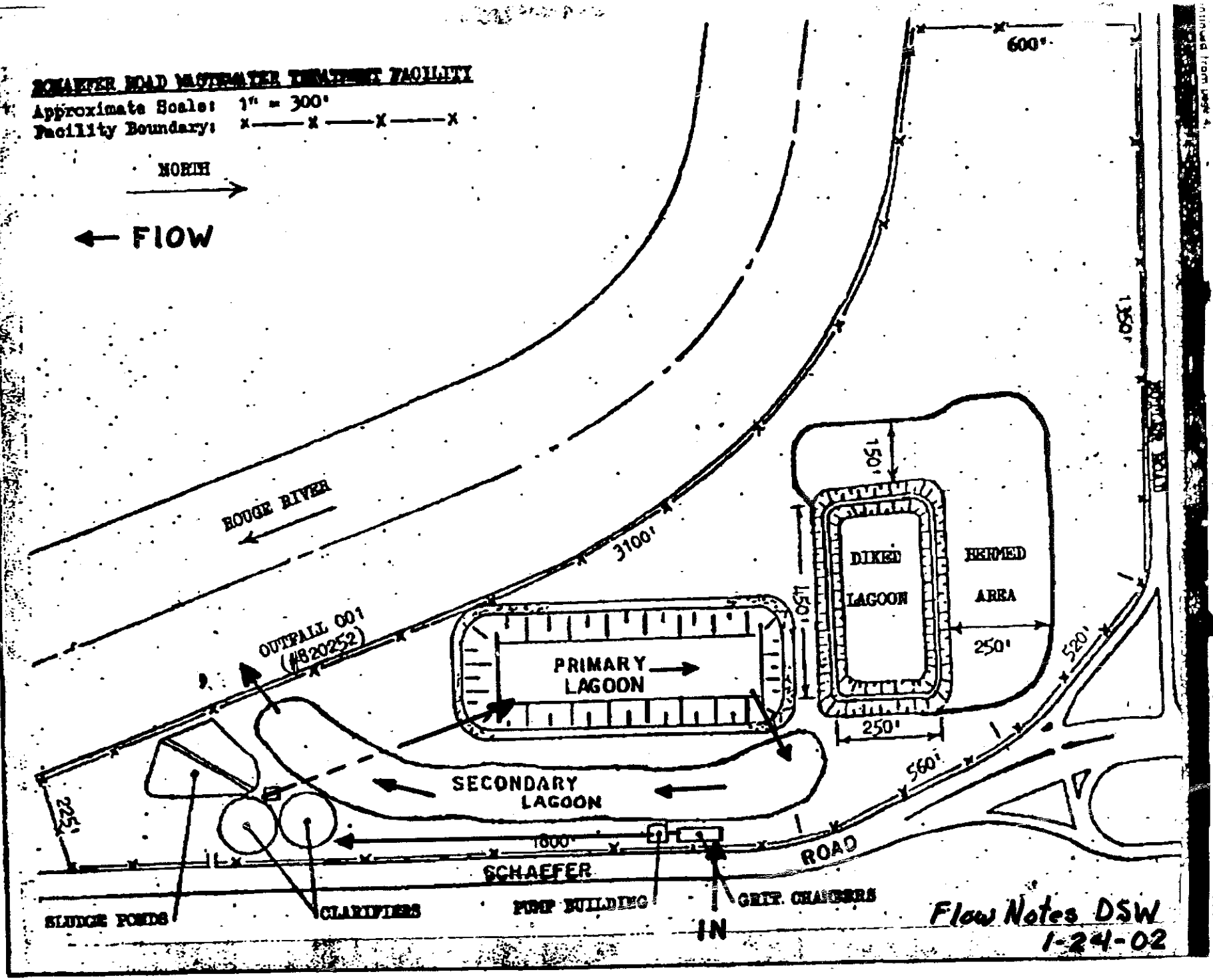


figure 5.1

PROPOSED SAMPLING LOCATIONS
SCHAEFER ROAD AREA
Dearborn, Michigan

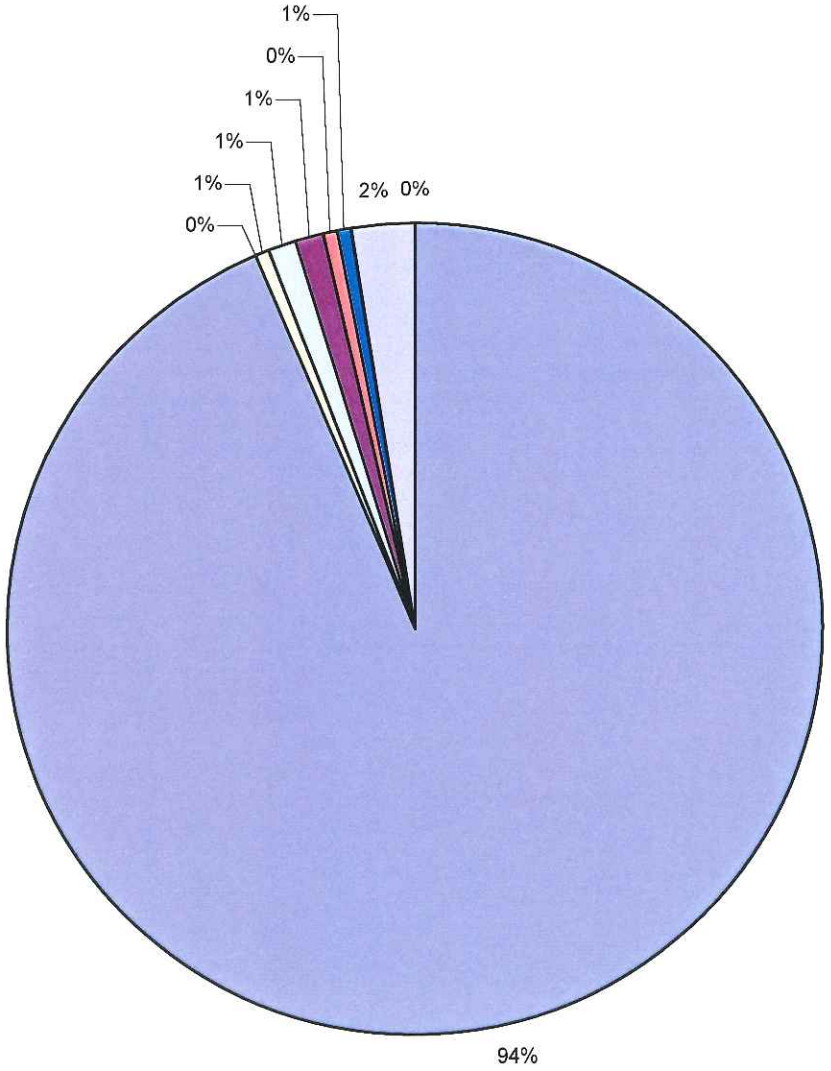
16636-00(001)GN-WA004 JUN 07/2001



SCHAEFER ROAD WASTEWATER TREATMENT PLANT

Total Individual Birds by Habitat

03/31/00 - 12/13/01



A Air	94%
C Edge of Water	0%
D Fence/Wire	1%
E Grass	1%
F Ground	1%
G Structure	0%
H Trees	1%
I Unknown	2%
j Water Surface	0%

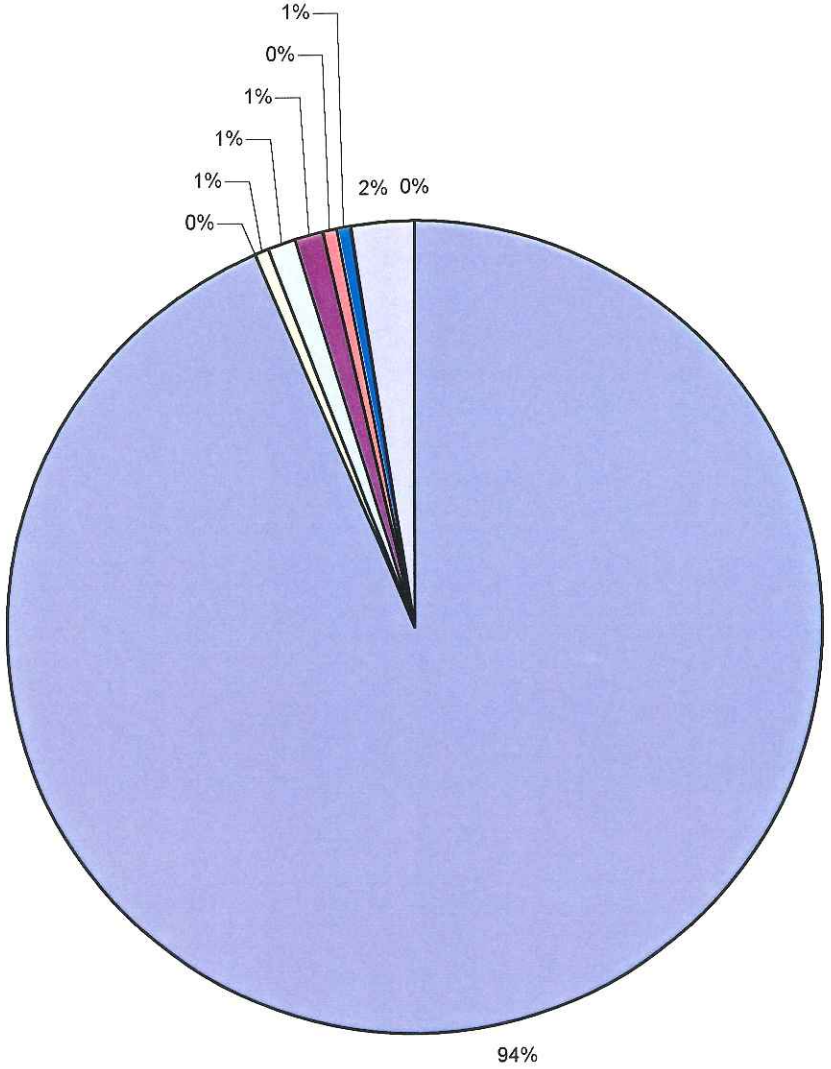
0% = less than 1

Source: MEC observations exclusively

SCHAEFER ROAD WASTEWATER TREATMENT PLANT

Total Individual Birds by Habitat

03/31/00 - 12/13/01



AGENDA
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10:00 AM

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   Including: how skimmers work, additives and what they do,
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   Oil Reduction / Remediation

7. Future Inspections

AGENDA

JANUARY 24, 2002

1. Safety Training (Safety Equipment)

2. Visit to SRWWTP

   Photograph, note and collect evidence on:

   netting, fencing and other deterrents
   presence and availability of oil/birds and wildlife
   dead or oiled birds and wildlife

2. Description of how SRWWTP works

   quantity of oil
   sources of oil
   types of oil
   analysis of oil
   management of oil prior to SRWWTP
   additives and purpose
   oil reduction activities
   oil and water removed
   oil in sludge and soil
   dredging of ponds, impoundments and clarifiers

3. Summary of Immediate and Continuing Emergency Measures as of January 2002

4. Why CEM do not meet the standard in the Order/are not adequate. Disapproval of CEM workplan.

   utilization by birds and wildlife/body count (goal is 0)
   does not permanently & continuously eliminate contact
   acute and chronic hazards and threats

5. Options to comply with 7003 Order

   reduction of oil / remediation
   fencing and netting

6. 3007 info request - cause of action

7. Future inspections / actions

Measures Taken by Rouge Steel
As of Jan. 2002

1. Installed low level fencing around selected portion of Diked Lagoon and ramps of Secondary Lagoon to deter birds from walking into lagoons.

2. Cannons, scare eye balloons, mylar ribbon

3. Added aeration equipment to sludge ponds (have to dredge less frequently)

4. Added 2d oil skimmer to secondary lagoon, and an oil skimmer to Diked lagoon

5. Trained personnel on need to keep wildlife away from ponds and lagoons.

6. Remove oil from surface by vacuum truck, as necessary

7. Installed netting over active sludge pond and north end of Primary Lagoon.

8. Covered oil stained slag around primary lagoon with UV-resistant geotextile.

9. (Proposed) install deterrent fencing around south end of Primary lagoon where slope to water is not as steep.

10. Hired wildlife consultant to advise Rouge of whether measures being taken are effective And to suggest additional measures (which MEC has done)

not to differ with EPA
advise EPA

ROUGE STEEL COMPANY

3001 Miller Road
P.O. Box 1699
Dearborn, Michigan 48121-1699

December 7, 2001

Via Certified Mail – Return Receipt Requested

Ms. Diane Sharrow (DE-9J)
Project Manager
Enforcement and Compliance
Assurance Branch
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: Status of Fencing and Netting

Reference: Rouge Steel Company, Administrative Order Docket No R7003-5-00-001

Dear Ms. Sharrow:

The Fencing and netting installation contemplated in our October 19, 2001 Continuing Emergency Measures Workplan was completed as of November 28.

Very truly yours,

D. S. Windeler

D. S. Windeler, Manager
Environmental Engineering

Enclosure

cc: Ms. JoAnn Merrick, MDEQ
Ms. Sheila O'Connor, US Fish & Wildlife
Gaylene Vasaturo, Esq.
Scott R. Dismukes, Esq.

at South end — ~5 m². Heavy sheen throughout Northern 1/6 of lagoon netted, similar to e. sludge pond.

Diked lagoon — water level with ~5' of top of berms. Spur oil layer visible at SE corner where Doerfer had apparently just been pumping. We saw the truck and Don W. mentioned they pumped there. Diked lagoon area has clear, green-tinged water from the lime. Brightly colored sheen covers several parts of the lagoon with open water, though much of this lagoon is frozen.

Recently weather has been >32°F. No ice on the Rouge R.

On the n. side of the bermed area, waste (solid fuel tarry black material that may have been oily at one time) is present on the edge and into the water. The bermed area has a mix of open water, phragmites, cattails and other sedges/reeches.

3-28-02 Kalamazoo River Tour with Craig

Sunny → clouding over highs expected in 40's

Galesburg - water is high, but mostly within banks. Adjacent floodplain forest has standing water.

Comstock - water in banks, but high

TO: Diane Sharrow, USEPA
FROM: Lisa Williams, USFWS
DATE: 5-24-02

RE: Copies of photos and field notes from our 1-24-02 visit to Rouge Steel

11-2-01, cont'd

swaths — looks like the start of a caroling pattern. 8 pheasant flew from interior of property to edge. Met ~~a~~ a pheasant hunter on the property with 3 dogs. Said he and his brother had hunted there for many years.

11-17, 11-18, 11-19-01 Andersonville Train Derailment — see Spill Ntbk. and Incident File

1-24-02 Rouge Steel with USEPA Diane Sharrow and Gaylene Vasaturo.

East Sludge pond - netted, with steel cables and black netting - 4" mesh size. Heavy sheen. White plaques associated w/sheen: tiny - 2/10" diam.

2° lagoon - more oil and sheen than on 10/31/01, several places $\geq 1 m^2$ with collected oil, heavy sheen on remainder. Oiled vegetation around perimeter, including tops of phragmites that apparently had been bent over and then rebounded. Tree of heaven, other shrubby growth around perimeter has been cut. Some shallow digs, not as fresh. Cannon firing, had been moved slightly, tires inflated.

1° lagoon - oil, several m^2 collected along south shore, also mousse collected on N side of baffle

United States Department of the Interior

FISH AND WILDLIFE SERVICE

IN REPLY REFER TO:

2651 Coolidge Road, Suite 101
East Lansing, MI 48823

December 12, 2001

Diane Sharrow
Enforcement and Compliance Assurance Branch
U.S. EPA, Region 5
77 West Jackson Boulevard (DE-9J)
Chicago, IL 60604

Dear Diane:

Enclosed please find my report on the visit that Dan Sheill and I made to the Shaeffer Road Wastewater Treatment Plant of Rouge Steel on October 31, 2001. Dan concurs with my account of our observations.

I scanned the 19 most useful of my slides in house and am enclosing 2 prints of each of those images so that you have one to send to Rouge Steel without additional copying. Let me know if you need additional copies or a different format. The pictures of sheen, in particular, are more clear on the original slides than on the scanned reproductions.

If I can be of further assistance, please do not hesitate to contact me at (517)351-8324 or lisa_williams@fws.gov (although our e-mail system is not currently functioning).

Sincerely,

Lisa L. Williams, Ph.D
NRDA Specialist

cc:

U.S. Fish and Wildlife Service
Ecological Services Division
East Lansing Field Office
Environmental Contaminants Branch

SITE VISIT REPORT IN SUPPORT OF U.S. EPA RCRA 7003 ORDER

Facility Name:	Rouge Steel Company
Facility U.S. EPA ID No.:	MID 087 738 431
Facility Type:	Regulated
Facility Address:	3001 Miller Road Dearborn, MI 48121
Facility Representative:	Donald Windeler, Manager Environmental Engineering Rouge Steel Company 3001 Miller Road Post Office Box 1699 Dearborn, MI 48121-1699 (313) 845-3217
U.S. FWS Representative:	Lisa L. Williams Contaminants Specialist 2651 Coolidge Road, Suite 101 East Lansing, MI 48823 (517) 351-8324 phone (517) 351-1443 fax lisa_williams@fws.gov
Date of Visit:	October 31, 2001

INTRODUCTION:

The purpose of this visit was to evaluate the potential for acute and chronic adverse effects of oil on wildlife at the Schaefer Road Wastewater Treatment Plant (SRWWTP) of the Rouge Steel Company. The visit was made at the request of the U.S. EPA as part of a continuing evaluation of compliance with the Administrative Order (Order) Docket No. R7003-5-00-001 issued March 1, 2000 and the Continuing Emergency Measures Workplan.

Based on previous inspections, U.S. EPA and the U.S. Fish and Wildlife Service (Service) have expressed concern about several issues including, but not limited to, the continued presence of unrecovered floating oil in and on the ponds and lagoons at the SRWWTP; the continued presence of oily embankments at the SRWWTP ponds and lagoons; the limitations of the effectiveness of deterrent measures to halt migratory bird injury and death; and improperly conducted inspections by Rouge staff. The purpose of this report is to document findings on these issues as well as present the Service's findings on the potential for acute and chronic adverse effects to wildlife.

FINDINGS:

Dan Sheill, a Service law enforcement agent, and I arrived at Rouge Steel at 1:50 p.m. and received safety training and certification from Don Windeler in the Ford Office Building from then until 3:10 p.m. During this time, Don stated that he and Mike Carlson had collected a bird from the diked lagoon on Wednesday, October 24, 2001, and placed it in a glass jar in their refrigerator. He acknowledged that Sheila O'Conner of the Service had instructed him not to move birds, but the lagoon was being filled and the bird would have been submerged, so he decided to collect the specimen. He also stated that Mike Carlson had discovered some bird remains on the west bank of the secondary lagoon on September 26, 2001. They marked the location, but did not collect anything.

After 3:10 p.m., Dan Sheill and I began our inspection accompanied by Don Windeler and Lan Trinh, a Rouge Steel environmental engineer. The weather was mostly sunny, approximately 65F, with a light breeze from the southwest. We could smell oil vapors strongly throughout our visit and also noticed a mercaptan smell and a sweeter smell on occasion which Don W. said was from the nearby rendering plant. Two propane cannons were firing throughout our visit.

The east sludge pond had steep earth sides with some *Phragmites* sp. The sides and vegetation were coated with oil from the water's surface to a line approximately 12" higher than that. A low concrete wall on the east side of the pond had a small (approximately 6" by 14") pool of oily sludge on it. When I asked Don W. why there was a pool there, he said that trucks occasionally back up to the sludge pond to dump waste there. The surface of the pond had heavy sheen which was moving across the surface of the pond in patches of irregular sizes and shapes. The sheen varied in surface coverage from 10% to 100% of any given square meter. The "scare-eyes" balloon suspended over the pond was coated or stained black on the lower third. Oiled lumps were found along the shoreline. I poked at several and they appeared to be balls of clay. If dead

oiled birds had been present along the shoreline, I could not have distinguished them from these lumps.

The west sludge pond had steep earth sides along 3/4 of its perimeter and steel piling on the remaining 1/4. The sides had been recently scraped and Don W. said that the pond was no longer being used. Nonetheless, sheen was visible sporadically on the surface and marks on the pilings indicated previous water and oil levels approximately 2 feet higher than the current water level.

When I examined the south clarifier it had oils on the surface which a skimmer arm was collecting.

The secondary lagoon has tall sloping banks with a shoreline that includes large gravel, soils, and some vegetation. This lagoon had sheen visible throughout its length. Overall, the sheen covered approximately 20% of the surface area, but covered 100% in areas in which the breeze was concentrating it. Thick, floating oil was present near a steel wall at the north end. The oil there covered approximately two square meters. The shoreline was oiled and dark throughout, so any dead birds, bats or other wildlife would have been very difficult to see. Also, the tall, sloping banks made walking close to the shoreline dangerous, so we did not closely examine west bank that we did walk and we did not walk the east bank.

A damselfly near the shoreline at the south end of the secondary lagoon was flying weakly and I was able to easily pick it up by the wings when it landed. I should not have been able to do this with a healthy damselfly. The presence of distressed or vulnerable insects attracts birds and bats which may then ingest hazardous substances with their prey or be exposed to oil on the water, vegetation, or shoreline in the area.

I found many shallow, freshly dug holes along the west bank of the secondary lagoon in areas of short vegetation mixed with gravel. The holes were roughly conical, approximately 2" in diameter and 2" deep. I also found one piece of scat in one of the areas with these depressions. I collected the scat. These depressions and scat are evidence of continued wildlife use of the area adjacent to exposed oil.

I collected the remains of a dead bird on the west side of the secondary lagoon. This is the bird that Don W. reported as being discovered by Mike Carlson on September 26, 2001. They had marked the location well. The remains consisted primarily of feathers which appeared darkened. They were also weathered and soiled.

Lan T. noticed and I collected a single gray feather, approximately 5" long, near the edge of the road at the top of the north bank of the secondary lagoon. This feather was soiled, but did not appear to be oiled.

The propane cannon located on the west bank of the secondary lagoon was pointed over that lagoon and was firing at approximately 2 minute intervals. The cannon was on a wheeled garden cart, but at least one of the rubber tires was flat and appeared to have been in that position for quite a long time. I observed one mourning dove in the vicinity of the cannon flush when the

cannon fired. It did not land within the fenced boundary of the SRWWTP. On another occasion, a gull flying high over the SRWWTP changed its course slightly right after one of the cannons fired. The other cannon was operating on the NW side of the diked lagoon. Starlings and red-winged blackbirds were perched in the bermed area in the vicinity of this cannon. Their behavior did not appear to be affected by the cannon firing.

The shoreline of the primary lagoon appeared oiled near the waterline. The wide slope of the east shore was sparsely vegetated. While the underlying large gravel was stained black for at least six feet up from the waterline, the vegetation only appeared oiled within one foot of the current waterline. The low light from the west did not allow me to estimate the sheen coverage for this lagoon from the east side, but sheen was present.

Dan Sheill discovered a bird carcass approximately 4' from the waterline on the east bank of the primary lagoon, approximately 1/3 of the way from the south to the north end of the lagoon. The feathers of the bird were heavily oiled and difficult to see against the blackened gravel substrate. A few protruding bones which were bleached white probably allowed the bird to be spotted and also indicate that the carcass had remained there, undiscovered, for some time. The remains included part of the lower abdomen and tail, a wing, and other bones.

The diked lagoon had steep sides which appeared to have been recently scraped, but still appeared oily, especially within one foot of the current waterline. The surface was approximately 80% covered with heavy sheen. Don W. stated that they are still raising the water level in this lagoon following recent excavation of accumulated material from inside it. Orange plastic snow fencing is present around part of the top of the bank. Don W. explained that this fence had been placed there to deter Canada geese and other species that might walk to the lagoon. Don W. pointed out the location on the south shore of the lagoon where Mike Carlson retrieved a dead bird on October 24, 2001. He indicated that the spot where the carcass was found was now several feet into the water. I observed one insect flying over the surface of the diked lagoon.

Although we were primarily looking down at the shorelines and lagoon surfaces, we did happen to observe numerous birds flying over and perched in the vicinity of the SRWWTP, despite the cannons. I observed at least 5 groups of 2 to15 red-winged blackbirds and at least 2 groups of 3 to 4 starlings flying over the site and several blackbirds perched near the diked lagoon. I also saw several mourning doves, rock doves, and unidentified gulls flying over the site. The mourning dove that flushed when one of the cannons fired had been on the ground within the site. When we left the site at about 5:15 p.m., the light was too dim to take photographs, but we could still see birds flying in the vicinity. At no time during our visit did we observe a Rouge Steel employee surveying the area, though Don W. and Lan T. did accompany us throughout our visit and several people were present in and around the building by the clarifiers.

After leaving the site, we returned to Don W.'s office to catalog samples collected and transfer the small bird that he had collected on 10/24/01 into our possession. The small bird was in a sealed glass jar which Don said had been refrigerated. The entire plumage was black, moist and shiny and therefore appeared oiled. Upon opening the jar to get a better look at the bird, I

smelled decay. The beak shape was consistent with identification as a warbler, but the plumage was too blackened to make any more precise an identification.

The samples collected and transferred are as follows:

Date Found	Location	Description	Found By	Collected By
09/26/01	west bank of secondary lagoon	clumps of feathers from a small bird	Mike Carlson	Lisa Williams (10/31/01)
10/24/01	south bank of diked lagoon	small bird, appeared oiled	Mike Carlson	Mike Carlson and Don Windeler
10/31/01	east bank of primary lagoon	oiled carcass of medium-sized bird	Dan Sheill	Lisa Williams
10/31/01	north end of secondary lagoon	one gray feather, ~5" long	Lan Trinh	Lisa Williams
10/31/01	west bank of secondary lagoon	scat	Lisa Williams	Lisa Williams

CONCLUSIONS:

(1) Birds and other wildlife continue to have access to oil on shorelines, vegetation, structures, and pond and lagoon surfaces.

(2) The continued discovery of dead, oiled birds around the lagoons clearly demonstrates that this facility continues to cause acute mortality of migratory birds.

(3) The extent of mortality is likely much greater than indicated by the collection of these carcasses for many reasons:

(a) only birds dying on shore in areas of little or no vegetation would be discovered
(b) several oiled pockets that I observed had sufficiently thick oil such that a bird in that area could become oiled enough such that it would die in the lagoon itself
(c) oiled bird carcasses are very difficult to distinguish from an oily shoreline
(d) carcasses may be scavenged by other wildlife
(e) impaired birds which can still walk away from the site of oiling are known to hide in thick vegetation, so their bodies would likely not be discovered on an inspection of the pond and lagoon perimeters
(f) impaired birds are more vulnerable to predation and may attract hawks and other predators to the area
(g) birds oiled but still able to walk or fly to a location to preen may die later from toxic effects of ingested oil or loss of thermoregulation because of oiled feathers

(h) we did not inspect the perimeters of all ponds in the two hours that two of us were searching
(i) our discovery of a weathered, oiled carcass near the primary lagoon indicates that Rouge Steel inspections can miss carcasses even in areas of sparse vegetation
(j) even 1-2 microliters of oil which is transferred to eggs in a nest from bird plumage can kill bird embryos

(4) Oily sludge is occasionally transferred from trucks into the east sludge pond. We observed spilled sludge on a low wall along the edge of the pond. Birds are often attracted to perches overlooking water, so this presents a clear hazard.

(5) The deterrents currently in place (scare-eye balloon, boom obstructions, propane cannons, snow fence and some vegetation control) do not prevent bird mortality at this facility.

PHOTOGRAPHS:

I took 39 color slides and have reproduced 19 of them as scanned prints attached to this report. The 24 digital photos that I took are not focused well because of a malfunctioning camera.

ATTACHMENTS:

Map showing locations of many of the features described in the Findings section of this report. Figures 1-19 also showing those features (see legends on figures).

EXHIBIT 2

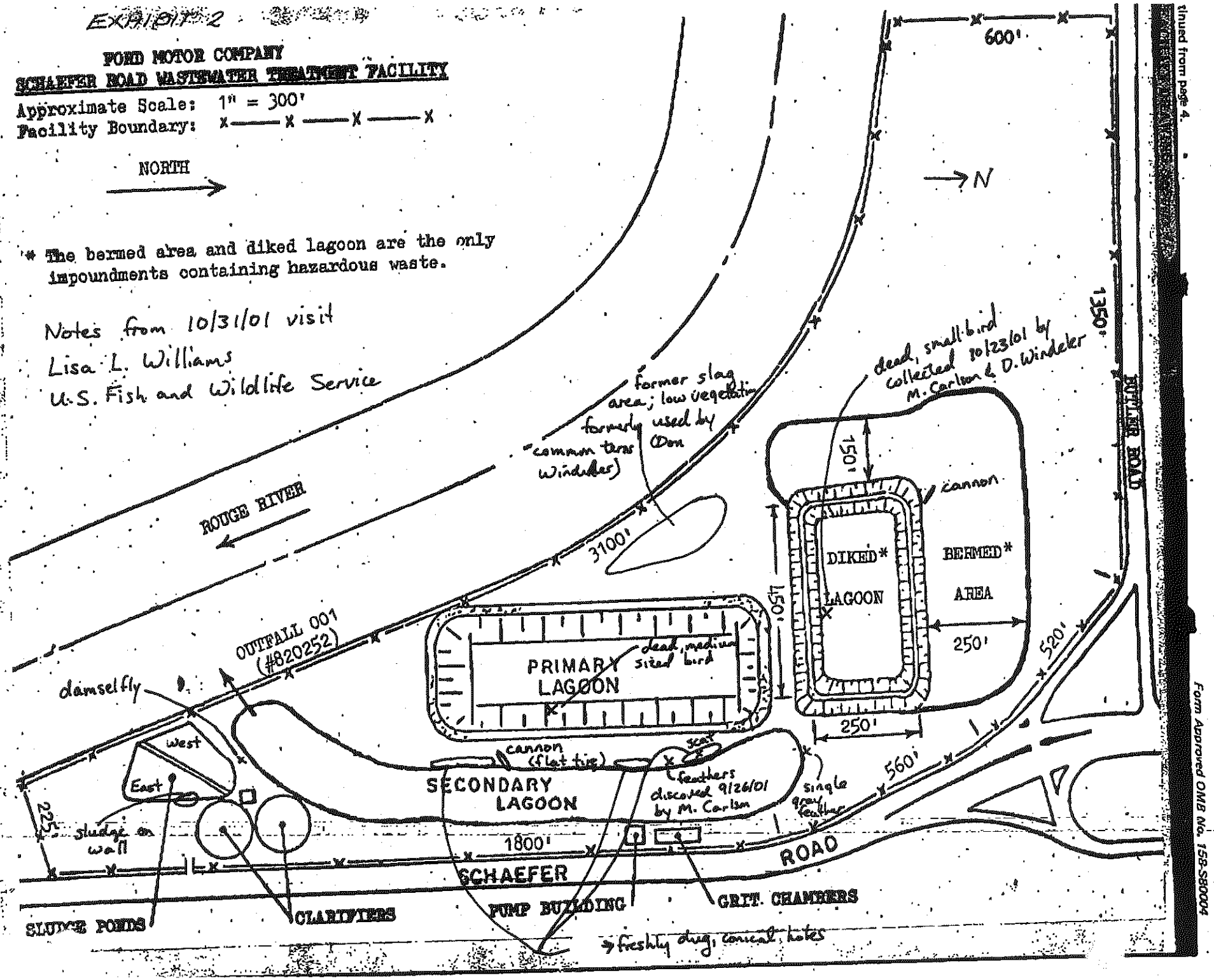
FORD MOTOR COMPANY
SCHAEFER ROAD WASTEWATER TREATMENT FACILITY

Approximate Scale: 1" = 300'
Facility Boundary: X——X——X——X

NORTH →

* The bermed area and diked lagoon are the only impoundments containing hazardous waste.

Notes from 10/31/01 visit
Lisa L. Williams
U.S. Fish and Wildlife Service



continued from page 4.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Law Enforcement
3800 Packard Road, Suite 160
Ann Arbor, Michigan 48108

IN REPLY REFER TO:

(FWS/LE) April 18, 2001

To: Gaylene Vasaturo
US EPA
Region 5

From: Sheila O'Connor, #541
Special Agent
US Fish & Wildlife Service

Dear Gaylene,

I went to the Rouge Steel plant today to look at the Shcaefer Road Waste Water Treatment Plant. I observed the following:

All the ponds in the complex had an oily residue or buildup (except the "Bermed Area" which was inspected only from a distance). Also, the west sludge pond had exposed oil on the shore line appx. 4 - 5' wide. This shoreline is flat and accessible to wildlife. Some of the other ponds had exposed, accessible oily shorelines. I have attached a map of the facility provided by Rouge.

No bird remains were recovered, however, several unidentified non-oiled animal remains were recovered. They will be sent to our lab. I am concerned that there is a ground predator living inside the fence line because of the remains and scat found in various locations. I also saw two holes/tunnels on the property in the immediate area of the ponds. Remains were recovered just outside the opening (appx 1' - 1.5').

The bird deterrent devices in place are several "scare eyes" balloons and two propane cannons, one of which was not operational. The cannon did not seem effective. I observed a robin land appx. 15' from the operating cannon. The cannon fired three separate times with no effect on the robin. I chased the robin, trying to scare it from the property. The robin flew a few feet away but didn't leave the area (west side of the secondary lagoon), and returned to its original location close to the cannon after Don Windeler and I left it alone. I saw two or three other robins landing in or flying out of the fenced area. I saw a few seagulls flying overhead. I saw several red winged black birds on the tall grasses. I saw two Canada geese floating on the water in the bermed area. Note that the Rouge map indicates this area contains "hazardous waste."

I heard frogs croaking in the bermed area. I heard many birds in the area that I couldn't see.

Oil was removed by a contractor before/during the time I was there. There was also an announced visit by a group from EPA earlier today.

Don Windeler told me they have not yet hired a wildlife consultant/contractor.

If you have any questions or concerns, call me at 734-971-9755 or 734-320-5159 (cell).

Sincerely,

SA Shcila O'Connor #541

SA Shcila O'Connor
Special Agent
US Fish and Wildlife Service

Form Approved OMB No. 158-S80004

Sheila_O'Connor@fws.gov on 04/18/2001 02:32:26 PM

To: Diane Sharrow cc: Robert_Lumadue
Subject: Rouge Steel

Diane,

Just got back from Rouge Steel.

The bermed area (area that's always been dry previously) is full of water. There were geese on the water and many red wing black birds nesting in all that tall grass. Additionally, they have frogs back in that area. I heard them croaking, didn't see any. If you look at the site map we were given, it states, "The bermed area and diked lagoon are the only impoundments containing hazardous waste." Any idea what is in there?

There was a lot of bird activity on the site. A robin landed on the west side of the Secondary Lagoon, appx 15' from the operating air cannon. It was not disturbed by the cannon, which blasted 3 times while I watched.

The only devices they have in place are the 2 air cannons (one of which is broken) and the scare eyes balloons. They have not yet hired a consultant.

I did not find any bird remains today. Some non-oiled animal remains were found. I'm sending them to the lab. It is also important to note that EPA representatives were at the site today as well on an announced visit, and the site was being skimmed, before, during and after the time I was there.

This is just an update for you. I will contact Gaylene and relay all this info to her. Call me if you have any questions.

Sheila

PS. My last day here in Ann Arbor will be May 15. I will continue to work this case from St. Paul, MN. The office # is 651-778-8360, however I will not report til after May 20. My e-mail address will remain the same.

ROUGE STEEL COMPANY

3001 Miller Road
P.O. Box 1699
Dearborn, Michigan 48121-1699

March 1, 2001

Via Overnight Express

Ms. Diane Sharrow (DE-9J)
Project Manager
Enforcement and Compliance
Assurance Branch
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: CEM Workplan update

References: 1. Administrative Order Docket No R7003-5-00-001
2. Your letter of February 16, 2001

Dear Ms. Sharrow:

We enclose for your review and flies, our updated Continuing Emergency Measures ("CEM") Workplan, dated February 28, 2001. We have not yet directly received your letter of February 16, but our counsel faxed their copy to us when they received it February 26. Regardless of the timing of the letter, following our February 2 conversation we had initiated action to address the issues discussed. This letter and the Workplan are intended to respond to the issues you stated in our February 2 telephone conversation and your letter referenced above.

The revised Workplan contains the current versions of the Inspection logs. The Instructions have been updated to make the reporting more specific. You will note that we have modified the Wildlife activity log instructions to emphasize dawn and dusk observations and the objective of making and recording observations prior to scaring the animals away. In addition to the Workplan, a copy of the February 28, 2001 refresher training manual is enclosed. This manual discusses chronic exposure concerns and the need to make observations on foot. It was explained in the training that it is our intent to use the reporting and the surveys by our expert to identify any usage, to prioritize our actions so as to deter usage of the ponds which could lead to chronic exposure, as well as acute exposure.

The refresher training was held February 28, 2001. It included a discussion of the necessity and methods of complete reporting. A list of the personnel trained is provided.

In the two instances where rehabilitation has been required, we used licensed contractors and they are still available to us. We have received a proposal from Southeast Michigan Wildlife Rehabilitation and will pursue a contract.

The stained soil at the Primary lagoon has not been associated with known exposure. We hope to get additional data with the revised inspections. However, there is a development that we

expect will impact this condition. We have requested proposals for the periodic dredging of the Primary lagoon and west sludge pond to start approximately in April. The contractors have been made aware of the requirement to prevent wildlife exposure to waste and provided with copies of the Administrative Order. It is our intent to work with the successful bidder to mitigate the exposure potential of the stained soil.

Please contact me at (313) 845-3217 if you have questions on the information in this letter.

Very truly yours,

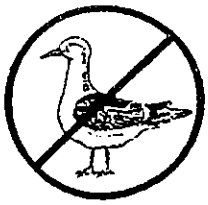
D. S. Windeler, Manager
Environmental Engineering

Enclosures

cc: Ms. JoAnn Merrick, MDEQ
Ms. Sheila O'Connor, US Fish & Wildlife Service
S. R. Dismukes, Esq. Doepken Keevican & Weiss

SCHAEFER ROAD WASTEWATER TREATMENT PLAN

CEM WORKPLAN
&
WILDLIFE CONTROL REFRESHER TRAINING



MEC Environmental Consulting
1003 Amelia Avenue
Royal Oak, MI 48073-2704
(248) 585-3800

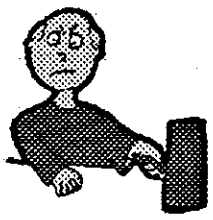
February 28, 2001

PROJECT HISTORY

EPA Compliance Order

- Stop exposure of migratory birds to oil
- Plan to eliminate oil contact by wildlife = CEM Workplan
- Submit report to EPA by 15th of every month
- $5,500 per day fine for not following

New Program for EPA



PROJECT HISTORY

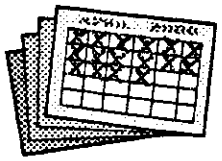
Continuing Emergency Measures (CEM) Workplan

- Prepared by ESC, a consultant, for Rouge Steel
- Draft - 3/20/00
- Conditional approval - 5/8/00
- Requirements
  - + wildlife deterrents
  - + inspection patrol
  - + training
  - + inspection logs
  - + wildlife surveys
  - + notification of supervisor
  - + notification of EPA

CEM

Continuing

- Continuous
- Chronic
- Consistent



Emergency

- Elimination
- Exposure

Measures

- Methods
- Monitoring

CHRONIC EXPOSURE

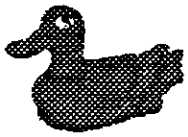
EPA's latest concern

Chronic

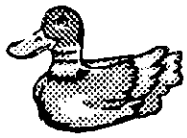
- Continuous
- Constant
- Small amounts
- Long term
- Opposite of acute

How do we document?

+ ACUTE



+ CHRONIC



5

INSPECTION LOGS

Document

- Wildlife exposure
- Deterrents
  - + Condition
  - + Effectiveness

Thus, they must be...

- complete and thorough
- consistent
- accurate

6

INSPECTION LOGS

Proper Inspection

- Park car away from lagoon edge
- Get out of car
- Walk to edge of lagoon
- Don't do when it's dark out

Proper Log Completion

- Use Y(Yes) or N (No)
- No dashes!
- No blanks!
- Use NA if needed
- Use black ink
- Date, time, and initial

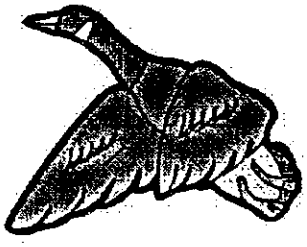
7

INSPECTION LOGS

3 Different Logs

- Oil Management
- Wildlife Deterrence
- Wildlife Activity

Do each daily



8

INSPECTION LOGS

When?

- Twice per shift
  - + Oil Management
- Dawn and dusk
  - + Wildlife Deterrence
  - + Wildlife Activity
- Whenever wildlife is seen
  - + Wildlife Activity

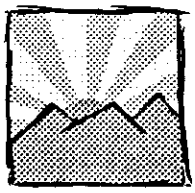
INSPECTION LOGS

Dawn

- Sunrise
  - + Within 1 hour

Dusk

- Sunset
  - + Within 1 Hour

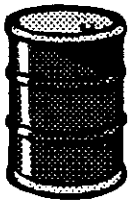


OIL MANAGEMENT LOG

To Document
- Presence of
  - + Recoverable oil
  - + Uncontained oil
- Response Actions Taken

Inspection
- Date
- Time

Recoverable Oil Not Skimmed
- Y or N
- For each lagoon
- No dashes!
- If Y, response action



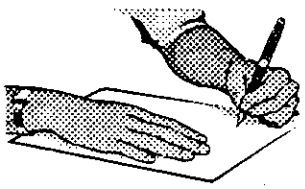
11

OIL MANAGEMENT LOG

All Recoverable Oil Contained
- Y, or
- Specific location
  - + SW Corner

Response Action
- Complete if necessary
  - + Y, not skimmed
  - + Location, uncontained
- Otherwise NA
- No dashes!
- No blanks!

Initials



12

WILDLIFE ACTIVITY LOG

To Document
- Birds or wildlife observed

Date

Time

Bird Type
- Ideally species
- Family is okay

Overflight
- Y if bird was flying over

Showed Interest in Pond
- Y if
  - + Flew towards
  - + Turned head towards

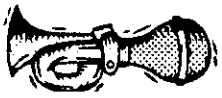
15

WILDLIFE ACTIVITY LOG

Bird Location
- Use code, plus
- Description
  - + South side

Number of shots
- Air horn blasts
- No dashes or blanks!
- If no use
  - + Put zero (0)

Result
- Of Air Horn use
  - + Flew away
  - + No effect



- No dashes or blanks!
  - + NA if no use

Initials

16

WILDLIFE DETERRENCE LOG

To Document

- Deterrent systems
  - + Operation
  - + Need for repair
- Exposed wildlife
  - + Absence, or
  - + Presence

13

WILDLIFE DETERRENCE LOG

Inspection

- Date
- Time

Deterrent System Status

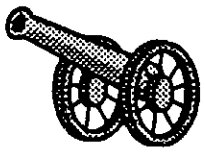
- Y or N
- No dashes or blanks!

Wildlife Observations

- N or Type Observed
- Dead or alive

Location

Initials



14

BIRD SCHEDULE-SPRING 2001

Migration started last week!

Birds to expect by month

- March
- April
- May

Migration means

- Increased numbers
- Increased variety
- Seeing SRWWTP for first time

17

MARCH

Geese

Ducks

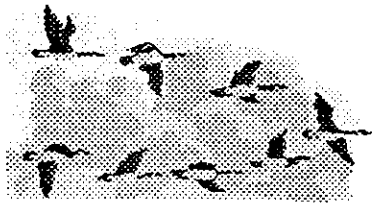
- Dabbling
- Diving

Blackbirds

- Redwings
- Grackles
- Starlings

Shorebirds

- Killdeer



18

BIRD IDENTIFICATION

Waterfowl - Dabbling Ducks

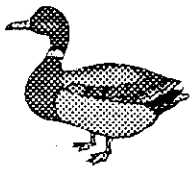
19

BIRD IDENTIFICATION

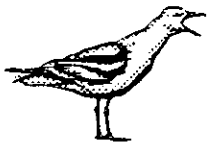
Waterfowl - Diving Ducks

20

APRIL



- Geese
- Ducks
  - Dabbling
  - Diving
- Terns and Gulls
- Shorebirds
  - Killdeer
  - Yellowlegs
  - Sandpipers
    - + Spotted
    - + Solitary
- Kingfisher
- Blackbirds
- Swallows



21

MAY

- Waders
  - Great Blue Heron
- Geese
- Ducks
  - Dabbling
  - Diving
- Terns and Gulls
- Shorebirds
- Kingfisher
- Swallows

22

QUESTIONS & ANSWERS

INDIVIDUALS TRAINED ON ROUGE STEEL COMPANY
FEBRUARY 28, 2001 CEM WORKPLAN

TRAINING DATE: FEBRUARY 28, 2001

NAME	LAST 4 DIGITS SSN
Thomas Barstow	Salaried
Sylvia Corley	4004
Robert Dudley	8943
Lonnie Grant	6024
Mark Mayler	8731
Johnnie Moss	5750
Richard Soltez	4005
Donald Windeler	Salaried

MID 087738431

ROUGE STEEL COMPANY

3001 Miller Road
P.O. Box 1699
Dearborn, Michigan 48121-1699

May 23, 2000

Via Certified Mail

Ms. Diane M. Sharrow (DE-9J)
Project Manager
Enforcement and Compliance
Assurance Branch
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

Subject: Rouge Steel Company, Docket Number R7003-5-00-001
Continuing Emergency Measures Workplan

Dear Ms. Sharrow:

We refer to your May 2000 letter to our attorney, Scott R. Dismukes, on this subject . The letter accepted the Rouge Steel March 21, 2000 CEM Workplan, on the condition that the comments enclosed with your letter be addressed within 15 days of receipt. We have addressed those comments in Enclosure I, submitted with this letter.

As we have discussed initially with Mr. Dismukes and Ms Vasaturo, and again during your visit of April12, the CEM Workplan was composed under a very tight time frame, and could be anticipated to be improved, both from further consideration and from practical experience with workplan. Although we both stated we had proposals to make for changes in the Workplan, time constraints during your visit of April 12 did not permit extensive discussion on this point. We take this opportunity to propose amendments to our March Workplan based on the above considerations and oversights such as identified in your comment number 8, which refers to an artifact from one of the workplans that was used as a pattern, and does not make sense in our Workplan. Our proposed amendments are presented in Enclosure II.

Should you have any questions regarding this letter or the enclosures please contact the undersigned at (313) 845-3217.

Very truly yours,

D. S. Windeler

D. S. Windeler, Manager
Environmental Engineering

Enclosures
cc: JoAnn Merrick, MDEQ
Scott R. Dismukes, Doepken Keevican & Weiss

ENCLOSURE I
ROUGE STEEL COMPANY
CONTINUING EMERGENCY MEASURES WORKPLAN
RESPONSE TO USEPA COMMENTS DATED MAY 8, 2000

U.S. EPA comments on the March 20, 2000 Continuing Emergency Measures (CEM) Workplan for the Schaefer Road Wastewater Treatment Plant (SRWWTP) are in plain text. Rouge Steel Company (RSC) responses are in italics.

1. Section 1 - Introduction

1. Please provide a discussion as to why the oily solid waste cannot be prevented from "entering" the ponds.

As noted in the Administrative Order, the SRWWTP lagoons are specifically designed for oil removal, as part of an NPDES-permitted wastewater treatment system. The primary and secondary lagoons provide a low-velocity, quiescent water body where oil can separate and float to the surface of the water and be removed by skimming. The area required for gravity separation is a function of the wastewater flow being treated. The primary clarifiers remove suspended solids by gravity separation, requiring a much smaller retention time than the gravity separation of oil. The clarifiers would have to be enlarged to a size approaching that of the ponds to 'prevent' oil from entering the ponds. This would move the accumulation of oil from the existing ponds to the "new" ponds thus created. There are no other processes upstream which could remove oil from the large flows handled by the SRWWTP. This discussion will be added to the text of the introduction.

2. Please provide a discussion as to why netting and additional fencing are not being considered as deterrents.

The primary and secondary lagoons are approximately 3 and 5 acres in size, respectively. The skimmer and baffle areas in the primary and secondary lagoons are 350 feet and 200 feet long, respectively. In addition, the lagoons are periodically cleaned by dredging. Given that there have been no wildlife exposures to oil within the primary and secondary lagoons, the extensive construction required to provide netting in these areas does not appear to be warranted based on existing information. At the time the plan was required, RSC did not have information to support that additional fencing would be an effective deterrent for migratory birds. Based on observation and surveys, low fencing is being considered for selected areas adjacent to several of the ponds.

2. Section 1.2 – Description of the Unit

1. Please quantify the amounts of floating oil that are present due to integral functions of the SRWWTP. Please also describe quantities that may be present due to such things as mechanical failures or losses of power.

During the period between April 1, 2000 and May 5, 2000, 27,500 gallons of oily water were collected at the SRWWTP for off-site disposal. This is an average of approximately 800 gallons per day, or 0.001% of the average daily flow through the SRWWTP. This indicates the amount of oil typically removed in the SRWWTP.

The amount of floating oil present will not be affected by mechanical failures or loss of power. The plant's operating permit requires that the plant shut down in the case of a power failure. The areas that discharge wastewater to the plant will also shut down in the event of a power failure. Therefore, no additional wastewater (or oil) will be discharged to the plant. A power failure will not affect the gravity separation of oil in the primary and secondary lagoons, and the collection of oil at the skimming booms. A power failure will affect the plant's ability to recover oil using the skimmer, so the amount of oil present will not change. The SRWWTP has dual power feeds from the main RSC plant, which provides additional security against power failure in the case of line or path problems. A temporary power failure will also not affect biological degradation of oil within the sludge lagoon.

3. Section 1.2.3 – Sludge Ponds

1. Please provide an estimate of how long it takes the ponds to fill with sludge, how the sludge is managed, the date sludge was last removed, and an estimated date of the next sludge removal. Please describe how wildlife will be excluded from the sludge ponds during sludge removal.

Material removed from the sludge pond is disposed of in an off-site landfill. In the past, RSC has dredged the sludge pond approximately every 20 months. The increased biological degradation occurring in the sludge pond is reducing the rate of sludge accumulation. RSC therefore expects that, in the future, the sludge pond will be dredged no more often than every 24 months. This information will be included in the work plan.

During sludge removal, RSC will relocate the noise cannon to the vicinity of the sludge ponds. This has been included in Section 4.0 of the work plan. Along with the continual presence of equipment and WWTP operators during sludge removal, this is expected to be an effective wildlife deterrent measure.

4. Section 1.2.6 – Diked Lagoon

1. Please provide a chemical characterization of the solids placed in the Diked Lagoon. Does the rainwater cause oils to separate from the solids and become available in any surface water in the diked lagoon?

RSC collected a sample of the solids in the diked lagoon on June 17, 1998, in order to characterize the material for disposal. The analytical results are attached. Rainwater does not cause oils to separate from the solids in the diked lagoon.

5. Section 4.0 – Wildlife Deterrent and Response Program

1. Rouge should include a discussion of the use of netting as a deterrent. This is especially critical to a wildlife deterrent program, in that physical barriers have been proven to be the most effective and cost-effective deterrents.

The locations with repetitive accumulation of patches of floating oil are the primary and secondary lagoons, which are approximately 3 and 5 acres in size, respectively. Given that there have been no wildlife exposures to oil within the primary and secondary lagoons, and that the patches occur next to the weirs, which the birds apparently avoid, netting does not appear to be warranted for those areas based on existing information.

6. Section 4.1 – Wildlife Deterrents

1. The SRWWTP area may indeed be fenced, but the are is too large to claim that the fence served as a successful deterrent to wildlife, especially birds. Please provide information on how these deterrents should be maintained (manufacturer's specifications) and will be maintained over the life of the SRWWTP.

RSC agrees that the perimeter fence is likely not a significant deterrent to birds. Nevertheless, RSC believes that the perimeter fence does deter some wildlife from accessing the SRWWTP area, and therefore serves a useful function. Maintenance tasks for the wildlife deterrents are listed in Table 1.

7. Section 4.2 – Monitoring Wildlife Deterrent Effectiveness

1. The Agency has found that counts and surveys are not sufficient in determining the effectiveness of a deterrent program, especially when the funds could be better spent on physical deterrents that have been proven successful in excluding wildlife. Please explain why Rouge Steel Company believes such counts are necessary.

RSC believes that counts and an evaluation of the existing deterrents are necessary to determine the types of birds that are present, and whether the proposed deterrents are the most effective ways to address those birds. We understand that different species of birds may migrate during March, April, and May, and other species may nest during the following period. This evaluation will serve as the basis of determining whether additional action is necessary and what deterrents would be the most effective.

8. Section 4.3 – Response to Wildlife Exposure

1. On page 23, reference is made to wildlife harmed by netting. What netting is present or will be present at the site?

The reference to netting was included in error and has been removed.

9. Section 6.0 – Monitoring and Evaluation Plan

1. Please explain the purpose of monthly inspections? These inspections should not replace those of the operators and should not be utilized to minimize the daily monitoring and evaluation activities of the operators and the Company.

The monthly inspections are separate from and will not replace the daily inspections. The purpose of the monthly inspections is to monitor and document the types of wildlife present and provide independent evaluation of the wildlife deterrents. These tasks are not within the scope of the daily inspections.

10. Section 6.1 – Daily SRWWTP Inspections

1. If oil is observed on the surface of the ponds, is not removed, and the wildlife is exposed to this solid waste, the Company will not be in compliance with the RCRA 7003 Order.

The text has been revised to state that the observation of an oil sheen in any portion of the ponds will not necessarily results in a response action.

11. April 14, 2000 Letter

The U.S. EPA is not adverse to Rouge Steel Company including the summary of operator's reports instead of daily logs. However, the U.S. EPA is concerned about two items that were noted after review of the daily logs. First, how is wind direction and velocity determined? Secondly, it appears that some of the operators may not be appropriately monitoring the area. . . .

This data was from operator estimates using a pennant located near the sludge ponds. RSC has since installed a weather station at the SRWWTP which includes a weather vane to observe wind direction and an anemometer to measure wind velocity. RSC will review the inspection requirements with the SRWWTP operators, with particular emphasis on the importance RSC places on these activities and accurate completion of the daily logs.

ENCLOSURE II
ROUGE STEEL COMPANY
CONTINUING EMERGENCY MEASURES WORKPLAN
MAY 23, 2000 PROPOSED CHANGES

Item	Page	Para	Line	Change	Reason
1	1	1	13	Replace "**wildfowl**" with "**wildlife.**"	Scope was too narrow.
2	1	2	6-7	Replace "**no potential exposure**" with "**demonstrated no exposure**"	"potential" is subject to broad interpretation, "no exposure" is the objective of the Order.
3	5	3	3	Replace "**wildfowl**" with "**wildlife**"	Scope was too narrow
4	8	5	1	Add to "…**will be removed**" the phrase "**as recommended by the Wildlife consultant.**"	The Wildlife Consultant has indicated that vegetation removal can make the areas more attractive to gulls and terns. Removal has to be contingent upon an assessment of the survey data.
5	8	3	Last	Add "**Booms at Diked Lagoon. Booms have been added to the diked lagoon to restrict the surface area, making it less attractive to birds requiring space for takeoff.**"	These booms have been installed.
6	9	1	11	Replace "**guns**" with "**scare devices**"	"guns" is artifact from plan for another site.
7	9	1	17	Add "...**or covered to prevent exposure.**"	Contractors have not been able to assure us that slag could be removed without causing exceedence of discharge permit limits.
8	10	4	5-6	Add "...**only if licensed technicians are not available.**"	Otherwise this contradicts intent to use licensed technicians.
9	12	2	1	Remove "**bird netting**" reference.	No antecedent. (Artifact from plan for another site.)
10	14	1	7-8	Replace "..**or the goal of the Work plan has been permanently achieved.**" with "...**or protection against exposure has been**	Criteria must be measurable to be meaningful.

Item	Page	Para	Line	Change	Reason
10 cont.				**demonstrated by an acceptable record of no exposures."**	
11	16	2	2	Change "**ponds and lagoons control zone**" to "**ponds and lagoons and their shorelines."**	"Control zone" is not defined.
12	22	2	3	Delete "…**described in Section 5.2**"	There is no Section 5.2
13	Inspection Logs			(Still under review)	Operators have requested clarifications.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

M[illegible] 2000

REPLY TO THE ATTENTION OF:

DE-9J

FACSIMILE and CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Scott R. Dismukes
Doepken, Keevican and Weiss
58th Floor, USX Tower
600 Grant Street
Pittsburgh, Pennsylvania 15219-2703

Re: Rouge Steel Company, Docket Number R7003-5-00-001
Continuing Emergency Measures Workplan

Dear Mr. Dismukes:

On March 1, 2000, U.S. EPA, Region 5 issued an Administrative Order to Rouge Steel Company under Section 7003 (a) of the Solid Waste Disposal Act, as amended, 42 U.S.C. § 6973 (a). Among other things, this Order required Rouge Steel Company to submit a Continuing Emergency Measures (CEM) Work Plan to Region 5. Region 5 has reviewed Rouge Steel Company's CEM, dated March 21, 2000. Region 5 is approving the CEM Workplan, on the condition that the enclosed comments are addressed within 15 days of the receipt of this letter.

Please be reminded that the Administrative Order requires Rouge Steel Company, to take, and continue to take, measures to stop the exposure of migratory birds to solid wastes at the Dearborn, Michigan facility. Specifically, the Schaefer Road Wastewater Treatment Plant.

In addition, Region 5 has reviewed Mr. Donald Windeler's letter of April 14, 2000, regarding the submittal of Monthly Report's and provision of a list of local services that are licensed to treat wildlife. We have included our response to Mr. Windeler's letter in the enclosure.

If you have any questions regarding this letter or the Administrative Order, please contact me at (312) 886-6199.

Sincerely,

Diane M. Sharrow, Environmental Scientist
Enforcement and Compliance Assurance Branch

cc: JoAnn Merrick, MDEQ

Enclosure

ENCLOSURE

ROUGE STEEL COMPANY
CONTINUING EMERGENCY MEASURES WORKPLAN COMMENTS

1. Section 1 - Introduction

Please provide a discussion as to why the oily solid waste cannot be prevented from "entering" the ponds.

Please provide a discussion as to why netting and additional fencing are not being considered as deterrents.

2. Section 1.2 - Description of the Unit

Please quantify the amounts of floating oil that are present due to integral functions of the SRWWTP. Please also describe quantities that may be present due to such things as mechnical failures or losses of power.

3. Section 1.2.3 - Sludge Ponds

Please provide an estimate of how long it takes the ponds to fill with sludge, how the sludge is managed, the date sludge was last removed, and an estimated date of the next sludge removal. Please describe how wildlife will be excluded from the sludge ponds during sludge removal.

4. Section 1.2.6 - Diked Lagoon

Please provide a chemical characterization of the solids placed in the Diked Lagoon. Does the rainwater cause oils to separate from the solids and become available in any surface water in the diked lagoon?

5. Section 4.0 - Wildlife Deterrent and Response Program

Rouge should include a discussion of the use of netting as a deterrent. This is especially critical to a wildlife deterrent program, in that physical barriers have been proven to be the most effective and cost-effective deterrents.

6. Section 4.1 - Wildlife Deterrents

The SRWWTP area may indeed be fenced, but the area is too large to claim that the fence serves as a successful deterrent to wildlife, especially birds.

Please provide information on how these deterrents should be maintained (manufacturer's specifications) and will be maintained over the life of the SRWWTP.

7. Section 4.2 - Monitoring Wildlife Deterrent Effectiveness

The Agency has found that counts and surveys are not sufficient in determining the effectiveness of a deterrent program, especially when the funds could be better spent on physical deterrents that have been proven successful in excluding wildlife. Please explain why Rouge Steel Company believes such counts are necessary.

8. Section 4.3 - Response to Wildlife Exposure

On page 12, reference is made to wildlife harmed by netting. What netting is present or will be present at the site?

9. Section 6.0 - Monitoring and Evaluation Plan

Please explain the purpose of monthly inspections? These inspections should not replace those of the operators and should not be utilized to minimize the daily monitoring and evaluation activities of the operators and the Company.

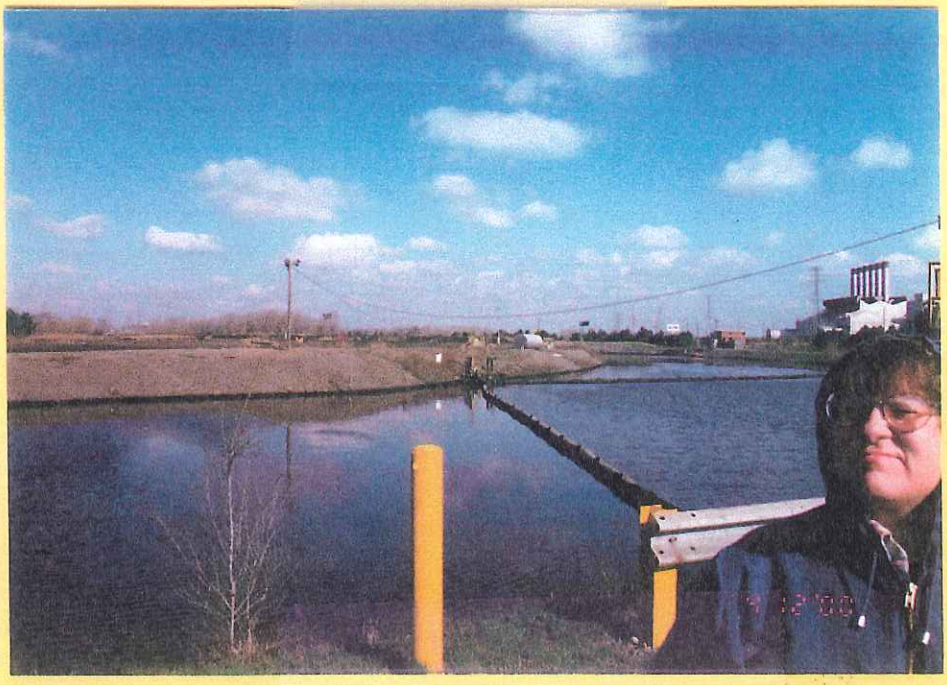
10. Section 6.1 - Daily SRWWTP Inspections

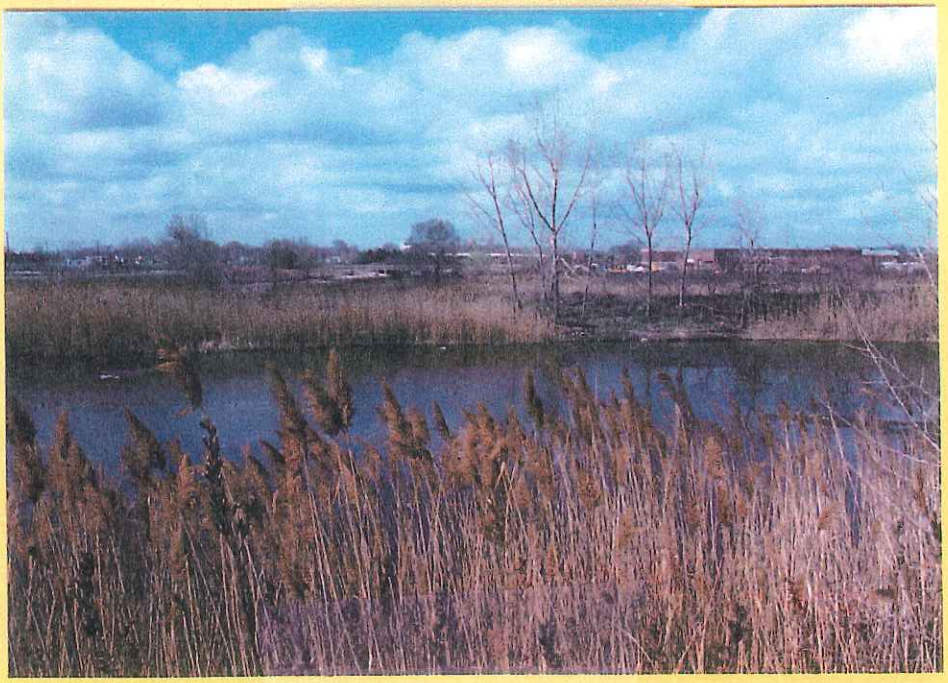
If oil is observed on the surface of the ponds, is not removed, and the wildlife is exposed to this solid waste, the Company will not be in compliance with the RCRA 7003 Order.

11. April 14, 2000 Letter

The U.S. EPA is not adverse to Rouge Steel Company including the summary of operator's reports instead of daily logs. However, the U.S. EPA is concerned about two items that were noted after review of the daily logs. First, how is wind direction and velocity determined? Secondly, it appears that some of the operators may not be appropriately monitoring the area. Specifically, on the March 12 and March 13, 2000, daily logs, the same operator uses the words "attack formation" and "yatta, yatta, yatta". These notes seem to suggest that the Order and its requirements are not being seriously considered. Before U.S. EPA's allows the discontinuance of the submittal of daily logs, please provide us with assurance that the area is being monitored correctly by all operators. As for the list of local services that are licensed to treat wildlife, it is the U.S. EPA's understanding that Ms. Sheila O'Connor of the U.S. Fish and Wildlife Service has provided you with a short list. In addition, the U.S. EPA suggests that you also contact the National Wildlife Rehabilitator's Association, 14 North 7th Avenue, St. Cloud, Minnesota 56303-4766, at (320) 259-4086, for a list of members who are licensed rehabilitators.

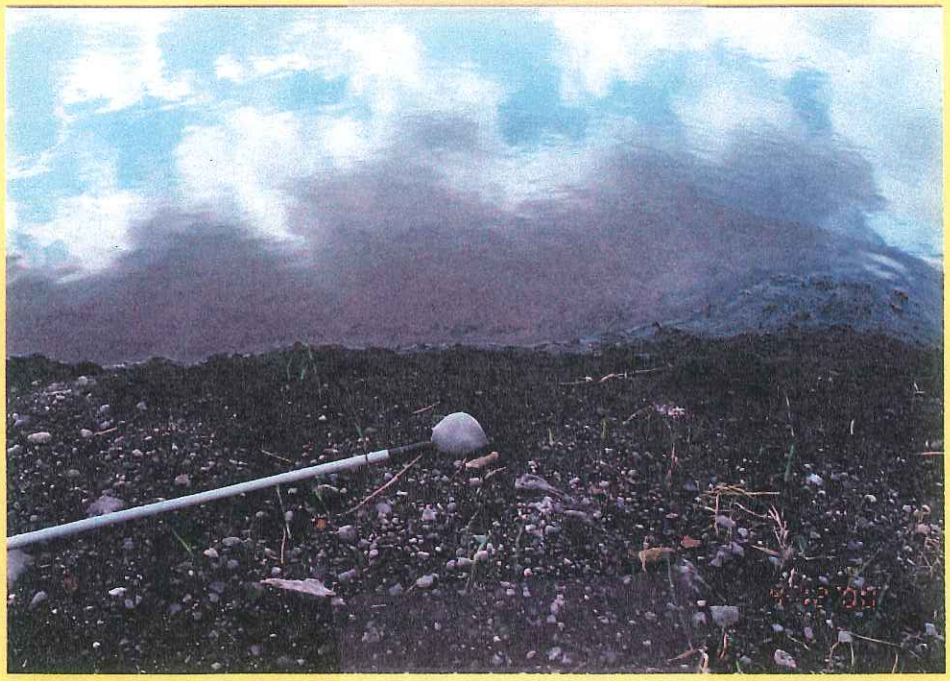
SITE VISIT 04/12/00





ATTACHMENT 4
PAGE 1 OF 7

ATTACHMENT 4
PAGE 2 OF 7



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PAGE 5 OF 7

ATTACHMENT 4
PAGE 7 OF 7

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive ▪ Reston, Virginia 20190 ▪ (703) 709-6500 ▪ Fax (703) 709-8505

CONTINUING EMERGENCY MEASURES WORKPLAN
SCHAEFER ROAD WASTEWATER TREATMENT PLANT (SRWWTP)
ROUGE STEEL COMPANY
DEARBORN, MICHIGAN

PREPARED FOR:

ROUGE STEEL COMPANY
3001 MILLER ROAD
DEARBORN, MICHIGAN 48121

PREPARED

BY

ENVIRONMENTAL STRATEGIES CORPORATION

MARCH 20, 2000

DOEPKEN KEEVICAN & WEISS

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March 21, 2000

Via Certified Mail - Return Receipt Requested

Ms. Diane Sharrow (DE-9J)
Project Manager
Enforcement and Compliance
Assurance Branch
U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Re: Rouge Steel Company, U.S. EPA Administrative Order Docket No. R7003-5-00-001 ("the Order")

Dear Ms. Sharrow:

On behalf of Rouge Steel Company ("RSC"), I am submitting the enclosed Continuing Emergency Measures Workplan ("CEMW"), as required by paragraph VII.B.1. of the above referenced order. Please note that, because of the extremely short time frame for development of the CEMW, RSC has not yet been able to confirm the schedules in the workplan with its contractors. We are endeavoring to do so and will notify you when we get confirmation.

It is RSC's intent to apply a continuous improvement process to the CEMW, evaluating it over time in order to adapt its specific provisions to achieve the best results based on RSC's experience and observations in implementing the program. We will advise you of any improvements made to the CEMW through this process.

We look forward to receiving your approval of the CEMW. Please call me at the number above if you have any questions.

Very truly yours,

Scott R. Dismukes

SRD/lmc
cc: Ms. JoAnn Merrick (with enclosure)
Mr. Louis D. Camino (without enclosure)
Mr. William B. Hornberger (without enclosure)
Mr. Martin Szymanski, Esquire (without enclosure)
Mr. Donald S. Windeler (with enclosure)
Ms. Gaylene Vasaturo, Esquire (without enclosure)

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(continued)

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1.0 Introduction

Rouge Steel Company (RSC) has prepared this Continuing Emergency Measures (CEM) Workplan for response activities at the Schaefer Road Waste Water Treatment Plant (SRWWTP) at its Dearborn Plant as required by EPA Administrative Order Docket No. R7003-5-00-001 (Appendix A). The Order requires that RSC take immediate measures *to "stop the exposure of migratory birds to solid wastes at the Schaeffer [sic] Road WWTP" (VII.A)* and to prepare a CEM Workplan that proposes measures necessary to protect wildlife or wildlife habitat from any harmful effects of solid waste at the RSC Facility, including the SRWWTP (VII.B). The goal of this CEM Workplan is to prevent any migratory birds from being exposed to solid waste (i.e., oil) present on and around the SRWWTP thereby preventing any harmful acute, subacute, or chronic effects. RSC intends to accomplish this objective by continuing to remove oil present on the surface of the clarifiers, primary lagoon, secondary lagoon, sludge ponds, and the diked lagoon; continuing random patrols by site personnel to scare wildlife away from the ponds, and continue operation of the propane cannon to audibly scare wildfowl from the area. In addition, RSC intends to further reduce the possibility of wildlife exposure by removing the vegetation present around the primary lagoon and the secondary lagoon. These areas will be maintained using selective application of a herbicide. The oil stained soil around the perimeter of the primary lagoon and the secondary lagoon will be removed and replaced by clean crushed slag. To deter wildlife from using the area, visual deterrents such as mylar ribbons and balloons and an additional propane cannon will be purchased and put into action in the area.

Section 2.0 of this CEM Workplan summarizes response activities already undertaken by RSC to remove oil, prevent wildlife exposure to oily media, and deter wildlife from the SRWWTP. Procedures to remove oil from the surface impoundment water surfaces (Section 3.0), to prevent and/or deter wildlife from approaching the surface impoundment's (Section 4.0), and to monitor and evaluate response activities to ensure achievement of the goal (Section 6.0) are given. The CEM Workplan will be implemented until the operations at the SRWWTP are discontinued or altered in a manner such that there will be no potential wildlife exposure to solid wastes. As this facility is an essential part of the RSC Steelmaking operation for the protection of the environment and is in compliance with its operating permit parameters, there are no current plans to close or alter the facility.

1.1 Description of Facility

The Dearborn plant was constructed by the Ford Motor Company starting in 1917. The steelmaking facilities were first added in 1919 and have been expanded and improved through the current construction of a new power house. On January 1, 1982, Ford Motor Company formed a wholly owned subsidiary, Rouge Steel Company. Rouge Steel Company was sold on December 15, 1989, and has operated as an independent company ever since.

The RSC plant was a fully integrated steel mill capable of producing coke, iron, and semi-finished steel flat-rolled product. The first steel facilities were a coke battery and a blast furnace. Open-hearth furnaces, a bar mill, a hot strip mill and cold rolling facilities were added. In the 1960's the open hearth furnaces were replaced with basic oxygen furnaces, a new cold mill was constructed, and a slabbing mill and hot strip mill were added. Electric arc furnaces, capable of producing steel from a 100 percent scrap metal charge, were added to the facility in 1976. A continuous slab caster, ladle metallurgy, and hydrogen annealing facilities were added in the 1980s. Currently, the coke battery, one blast furnace, slabbing mill, and the electric arc furnaces are idled.

1.2 Description of Unit

The RSC plant treats process wastewater and discharges treated water to the Rouge River in accordance with a National Pollutant Discharge Elimination System (NPDES) permit. The SRWWTP (Figure 2) is permitted to accept and treat contact cooling water, non-contact cooling water, process water, and storm water runoff (Figure 3). Prior to discharge toward the SRWWTP, RSC steel recovers some of the oil at the process units (e.g., Roughing Mill Scale Pit, Finishing Mill Scale Pit, and the Tandem Mill holding tank).

The purpose of the SRWWTP is to protect the environment by removal of grit, residual oil and grease (O&G), total suspended solids (TSS) and metals from process water. In order to remove oil and grease from the process water, it must float to the top for collection. The presence of some floating oil, therefore, is an integral function of the plant, and is not avoidable. RSC has active oil collection devices on both clarifiers, the primary lagoon, the secondary lagoon and the sludge ponds.

The treated water from the SRWWTP is discharged through Outfall 001. There have been no violations of the effluent standards, which include pH, O&G, TSS and metals concentrations, from the SRWWTP in over two years.

The SRWWTP is completely surrounded by a 6-foot high chain link fence topped with three strands of barbed wire. The facility is staffed 24-hours per day, seven days per week and only the Schaefer Road gate is left open for any extended period of time. The SRWWTP consists of a series of treatment units that systematically and continuously improve water quality as 60,000,000 gallons of water flow to the outfall each day. The water is conveyed from the RSC plant to the SRWWTP in a 96-inch sewer that crosses under Schaefer Road.

1.2.1 Grit Chamber

The flow enters a grit chamber where large items are removed and some particulate settles. The large floating items are removed as required from inspections and the accumulated particulate is annually removed with mechanical equipment. Flow from the grit chamber is pumped to two clarifiers connected in a parallel configuration. The surface of the grit chambers is turbulent and does not provide a water surface upon which wildfowl could rest.

1.2.2 Clarifiers

The SRWWTP operates two 110 foot diameter clarifiers in parallel. The primary function of the clarifiers is to remove suspended solids. They also contain oil skimmers, which allow for the removal of floating oil and grease. A small amount of polymer is added as required to improve separation of oils and solids from the process water. The underflow from the clarifiers is pumped to one of two sludge ponds the oil and grease flows by gravity into the oil storage tank at each clarifier. The oil and grease is hauled off site for recycle. The effluent water flows to the primary lagoon. The surface of the clarifiers is continuously disturbed by an oil skimmer arm. The clarifiers are located in a lighted area immediately adjacent to the operators' office and its associated traffic. No wildfowl have ever been observed attempting to rest on or drink from the clarifiers.

1.2.3 Sludge ponds

The sludge ponds are specifically designed for the accumulation of oily sludge, removal of oil and grease and decanting of water. The decanted water is pumped back to the clarifiers. The oil is removed by rope oil skimmers and placed in a tank. An oil reclamation contractor removes the skimmed oil. Bacteria are added to the active pond to facilitate oil

removal/destruction. Two aerators are used as required to improve the dissolved oxygen in the pond and accelerate the biological reduction of oil. The sludge is removed and disposed of when the ponds fill. The biological treatment reduces the amount of oil on the ponds' surface and has also reduced the volume of the sludge in the ponds. This has reduced the frequency of required dredging of these ponds. During dredging, the water is removed and the amount of exposed oily sludge is increased and therefore, the potential for exposure of wildfowl is increased. The wader exposure of about 10 years ago mentioned in the Administrative Order (IV.15) occurred during dredging of one of these ponds.

1.2.4 Primary Lagoon

The primary lagoon allows oil and fine-grained solids to separate from the process flow in a quiescent environment. This 200-foot by 685 foot lagoon contains a distribution weir, two oil baffles, an overflow weir, and an oil mop skimmer. Oil is continuously removed from the water flowing through this lagoon with the mop skimmer, and on a periodic basis (if oil accumulates away from the skimmer) using a contractor's vacuum truck. An oil reclamation contractor removes the skimmed oil. The solids deposited in the primary lagoon are dredged (approximately once every 24 months) and placed in the diked lagoon. The water from the primary lagoon flows to the secondary lagoon. The steep sides of the lagoon slope downward to the water surface and according to wildlife specialists are a deterrent to geese and other wildfowl that prefer to walk to and from the water surface

1.2.5 Secondary Lagoon

The 190 ft by 1125 ft secondary lagoon provides retention time for final settling and oil removal. The secondary lagoon has floating booms, a submerged weir, three underflow weirs, an overflow weir and two oil mop skimmers. Water from this lagoon is discharged over the overflow weir through a submerged outlet (Outfall 001A) to the Rouge River. The sides of the lagoon slope steeply downward to the water surface and according to wildlife specialists are a deterrent to geese and other wildfowl that prefer to walk to and from the water surface

1.2.6 Diked Lagoon

The diked lagoon is a 220 ft by 420 ft retention basin for the solids dredged from the primary lagoon. This area collects rainwater at times. The rainwater is decanted to the primary lagoon for treatment with the process flows.

2.0 Response Activities to Date

This section describes the response activities that RSC has performed at the SRWWTP both before receiving the order and since (e.g., since March 2, 2000). Activities going forward will be described in the monthly progress reports to be submitted to U.S. EPA.

2.1 Oil Reduction and Removal Activities

RSC has demonstrated their commitment to reduction and removal of floating oil from the SRWWTP. RSC, with no regulatory requirements has added aeration equipment to the sludge ponds, has introduced commercially available bacteria into the sludge ponds, has recovered floating oil with vacuum trucks and has procured an additional above ground storage tank with secondary containment to add an additional oil skimmer. These activities have minimized the opportunity for exposure to oil. In addition, RSC has on two occasions found oiled birds and taken them to the rescue league for rehabilitation. The first such occurrence, nearly ten years ago, involved a presumed Wader that landed in the sludge pond during dredging. This was not typical of the normal conditions and thus is not a normal exposure pathway.

Since receiving the Order, RSC has added a propane cannon, has removed approximately 100,000 gallons of water with floating oil, has increased the awareness of personnel to observe and chase wildfowl away from the area, , and has solicited proposals from excavation contractors to remove the oil stained slag adjacent to the water in the Primary and Secondary Lagoons.

The propane-fired cannon provides an audible deterrent to migratory birds that might otherwise land in the vicinity of the SRWWTP. The cannon was ordered March 3, 2000, and it began operation on March 6, 2000. The cannon has been positioned between the north ends of the primary and secondary lagoons. A three-minute cycle time is being used to deter birds from landing in either the primary or secondary lagoons. The cannon is being moved on a random basis and the firing cycle may be varied as determined to prevent habituation.

The predominant wind direction is toward the northeast in the vicinity of the lagoons. The flow in the Primary lagoon is to the north. This can create an accumulation of oil at the northeast corner of the primary lagoon. The propane cannon was initially placed in this area for that reason. This accumulation is at the end of the oil skimmer. While the oil skimmer can

remove this oil, RSC elected to also have an outside contractor vacuum the oil and surface water from the corner. This quickly eliminated any possible exposure in this area.

The SRWWTP staff has been alerted to the need to keep migratory birds and waterfowl away from exposure to the treatment lagoons. The staff has maintained observations and on one occasion chased two Canada geese away from the area.

RSC has a number of oil skimmers working at the SRWWTP. They have at times experimented with extra skimmers to increase the removal efficiencies at the plant. An extra oil skimmer is going to be located on the diked lagoon to allow removal of any oil that may accumulate there. RSC has procured a storage tank with secondary containment to allow installation and operation of the oil skimmer at the diked lagoon. The skimmer and tank installation is anticipated to be completed by April 30.

3.0 Oil Management Program

The oil removal activities conducted by RSC at the SRWWTP are described in Section 2.0. These activities continually remove oil from the treatment ponds using skimmers and utilize vacuum trucks to remove any accumulated oil not picked up by the skimmers. Oil sheens can continue to appear on the surface of the ponds due to the wastewater treatment process. RSC continues to implement measures to contain and remove this material as it appears on the water surface:

- Operate skimmers in the primary and secondary lagoons
- Install and operate a skimmer in the diked lagoon
- Pump collected oil from the skimmer tanks and remove for offsite disposal

3.1 Oil Program Inspection

RSC personnel inspect the SRWWTP clarifiers and lagoons several times each shift, seven days per week. The operators inspect the surface of the primary and secondary lagoons for recoverable oil. If uncontained oil is identified in an area that is not accessible by the oil skimmers, the inspectors shall report the presence of the oil to the SRWWTP Supervisor, or the Environmental Engineering Department, The SRWWTP Supervisor will assign personnel to capture the oil using a vacuum truck or portable containment booms. If uncontained oil is observed, efforts to contain the oil will commence as soon as practicable after the inspection, but not later than the next calendar day after discovery. Removal of oil by vacuum truck will begin no later than the first workday following discovery.

4.0 Wildlife Deterrent and Response Program

This section describes the measures that RSC has implemented and will continue to implement to deter wildlife from entering the waters of the SRWWTP and to prevent wildlife exposure to any solid wastes present. The program described in this section will continue until the operations are altered to eliminate exposure or it is closed. As the SRWWTP is an integral component of an operating steel mill and is necessary to protect the environment, there are no plans to close this facility.

The program will be inspected and re-evaluated as described in Section 4.2. Section 4.3 describes the actions that will be taken in the event that wildlife is exposed to any solid wastes present at the SRWWTP. Implementation of these actions is subject to availability of qualified contractors. RSC is retaining contractors with overlapping capabilities and training its personnel so as to minimize implementation delays where possible.

4.1 Wildlife Deterrents

RSC has implemented several wildlife deterrent measures at the SRWWTP. The following wildlife deterrents have been implemented at the SRWWTP:

- Fencing. A 6-foot chain link fence topped with barbed wire completely surrounds the SRWWTP.
- Vegetation. The vegetation around the primary and secondary lagoon will be removed. A herbicide is to be applied as necessary to prevent re-growth of vegetation and eliminate vegetation on steeper portions of the banks around the primary and secondary lagoons.
- Noise cannon. A propane cannon has been placed on the banks of the primary and secondary lagoon. The cannon is timed to fire a single burst at intervals to be determined, and will be relocated as determined to be necessary to prevent habitation. The cannon is not operated at night due to safety considerations for the onsite employees and consideration of the surrounding communities.
- Terrain. The steep sides of the lagoon slope downward to the water surface and according to wildlife specialists are a deterrent to geese and other wildfowl that prefer to walk to and from the water surface.

RSC will implement additional measures to deter wildlife from the SRWWTP. These additional measures consist of:

- Expand the seven-day per week, inspection patrols at the SRWWTP to increase activity during the times when birds are most active – dawn and dusk. Inspection patrols will include two cycles during the three hours in the morning and two cycles during the three hours in the evening. The morning inspections will start one hour before sunset and the last one will be approximately one hour after sunset. The inspection patrols will be equipped with manually operated scare devices; a variety of whistling, banging and other loud noise makers (eg. air horn) to frighten birds. Air horns provide adequate noise to deter individual birds or flocks of birds from landing in the pond. Personnel will use the guns as necessary during their patrols to deter birds from the Sludge Ponds, the primary and secondary lagoons and the diked lagoon.
- Removal of Stained Slag – The primary lagoon dikes are covered with a coarse slag to prevent erosion into the basin. Along the perimeter of the primary lagoon just above the water surface is a narrow band of stained slag. The stained slag will be removed and replaced with clean slag.
- Visual deterrents. Mylar ribbons will be installed along the top of the chain link fence near the west side of the primary lagoon; along a cable strung across the southeast corner of the primary, secondary, and diked lagoons; and between the sludge ponds.
- Over-water Audio Deterrent – RSC will purchase a second propane noise cannon and set it to fire randomly. Initially, the frequency will be every 10 minutes or less, but it will be adjusted based on impact. This cannon will be placed at various locations at the SRWWTP, and will be moved as needed to prevent habitation. The cannon may be placed on/in a Jon boat on one of the lagoons. The Jon boat would be moved by towing it from shore. Over-water work will not be conducted.

- Purchase a preprogrammed recorded bird deterrence device (Phoenix Wailer MKIII, or similar) and run it during evenings when the propane cannons are not operated at the site. This device plays distress calls to deter individual birds and flocks from landing in the ponds and lagoons.

Training for the inspection patrols will include identification of avian species, and recognizing avian behavior, particularly with respect to the ponds and lagoons. The patrols will be trained to use various devices and scare tactics to deter birds or land animals that demonstrate an interest in the pond. The inspectors will be required to keep a log of these efforts (Appendix C), when they were used, and which avian species or family was involved (i.e., passerines, wading birds, raptors, ducks, geese). The log will monitor the success rate of the deterrent actions. Should a bird actually land in the ponds or and make contact with oily surfaces, the inspectors will report the incident as described in Section 4.3.

Dearborn police and the Melvindale Fire Department will be notified of the expanded deterrent program, including the use of a second cannon. They have already been notified and witnessed the use of the existing cannon. When RSC or a contractor dredges either of the sludge ponds, at least one of the propane cannons will be relocated to the area of the sludge ponds. The cannon will be operated in this area during dredging.

4.2 Monitoring Wildlife Deterrent Effectiveness

The goal of the wildlife deterrent program is to prevent resident and migratory wildlife from contacting any oily surfaces at the SRWWTP. The program will be monitored and evaluated to determine if it is meeting this goal. The program will be monitored as follows:

- RSC personnel will continue to monitor the ponds daily in accordance with the log sheets and instructions in Appendix C. RSC personnel will inspect the ponds and lagoons for exposed wildlife, and recover or capture any dead or injured birds.
- Once per month during the migration season, trained biological technicians will count all birds (species and number) that fly over or near (within 200 feet) of the ponds and lagoons. The count will commence two hours before sunrise and continue for no less than four hours. The technician(s) will be proficient in flying bird identification, the use of binoculars, and bird behavior. A standardized data

form will be designed. A copy of the completed data form will be faxed or delivered to MEC Environmental Consulting within two hours of the monthly count. If the species flying to or by the SRWWTP ponds and lagoons, or their behavior, indicates a specific interest in the ponds or lagoons, MEC Environmental Consulting staff will evaluate the effectiveness of the deterrence program. The evaluation will pay special attention to any direct evidence of oiled birds or animals at the SRWWTP.

The daily inspections will continue during the winter. If any pond or lagoon freezes over, then daily inspection of that pond will be discontinued until such time as 1,000 square feet of open water develops at the pond or lagoon. Inspections will continue while the SRWWTP is in operation. Monthly bird counts will continue for a period of two years (2000 and 2001). In subsequent years, one bird count will be conducted during the spring migration season to evaluate the continued effectiveness of the wildlife deterrence program.

4.3 Response to Wildlife Exposure

RSC personnel and biological technicians will observe the SRWWTP for exposed wildlife during their daily inspections and monthly bird counts, respectively. Evidence of exposure will include 1) oil or suspicious discoloration of feathers or fur, or 2) indications or unusual behavior, such as difficulty walking or flying, and inability or unwillingness to move or escape human approach. Animal Services of Michigan (ASM) has been retained to train RSC personnel to identify symptoms of wildlife exposure, and in appropriate techniques to capture and cage exposed animals. If evidence of exposure is observed, personnel will immediately notify the SRWWTP Supervisor, who will notify the Manager, Environmental Engineering. The Manager, Environmental Engineering will in turn notify ASM. RSC will notify U.S. F&WS and U.S. EPA if any injured, oiled or dead birds are discovered at the SRWWTP.

Attempts will be made to capture live wildlife that is oiled or displays evidence of exposures. RSC personnel will not attempt to capture live wildlife, but will continue to observe wildlife until ASM arrives on site. ASM will attempt to capture exposed birds and other animals on the shore. ASM will observe live, oiled birds seen on the water prior to attempting capture. Transport caging has been placed at the SRWWTP for use in the event that wildlife is exposed and captured.

Captured animals will be placed in cages or boxes, and transported to the ASM facility as soon as possible after capture. ASM is a Federally and Michigan licensed wildlife rehabilitation specialist, as documented in Appendix D. ASM will coordinate the identification and selection of appropriate licensed rehabilitation specialists as necessary to treat exposed wildlife. RSC will notify U.S. F&WS and U.S. EPA if any injured or oiled birds are sent to a rehabilitation center.

If dead wildlife is found at the SRWWTP, including wildlife harmed by the bird netting, RSC staff and contract personnel will immediately notify the Plant Supervisor, who will notify the Manager of Environmental Engineering. The Manager of Environmental Engineering will notify both the U.S. F&WS and U.S. EPA. All expired wildlife and wildlife remains, including but not limited to bones, flight feathers, etc., will be noted, and photographed prior to retrieval by any RSC staff or contract employees. RSC staff and contract employees working in the SRWWTP area have been notified of this important requirement. RSC will document the location of the wildlife and remains on a site plan. The expired wildlife and remains will be bagged and refrigerated, and held by ASM. The disposal of any wildlife shall occur no sooner than 45 days after notification of the U.S.F&WS.

5.0 Operation and Maintenance Plan

The operation and maintenance activities required at the SRWWTP are presented in Table 1. The locations of necessary materials and spare parts are also listed in Table 1.

6.0 Monitoring and Evaluation Plan

RSC is monitoring the performance of the response measures described in Sections 3 and 4. The monitoring program includes:

- Visual inspections of the SRWWTP by RSC personnel two times per day, seven days per week.
- Monthly inspections by trained wildlife technicians during migration season.

Regular inspections by RSC personnel began on March 3, 2000. Monthly inspections by trained wildlife specialists will begin upon approval of this CEM Workplan. The daily inspection will continue until the SRWWTP is closed or the goal of the Work plan has been permanently achieved. The monthly inspections will be conducted for two years. In subsequent years, wildlife inspections will be conducted once per year, and will continue until the SRWWTP is closed or the goal of the Work Plan has been permanently achieved. Implementation of these actions is subject to availability of qualified contractors. RSC is retaining contractors with overlapping capabilities and training its personnel so as to minimize implementation delays where possible.

6.1 Daily SRWWTP Inspections

Inspections of the SRWWTP occur daily, seven days per week, within one hour before sunrise and two hours after sunset, respectively. Inspections are designed to monitor and document 1) the effectiveness of oil containment and removal measures, 2) the condition of the shoreline), 3) the condition and effectiveness of wildlife deterrent systems, and 4) the presence of exposed wildlife. Inspection logs are included in Appendix F.

Observations of oil on the surface of the ponds and lagoons will not necessarily result in response actions. The presence of the oil will be noted on the inspection log and monitored for accumulation into recoverable oil during future inspections. Accumulation of oil will result in response activities as described in Section 3.

Inspectors will visually evaluate the condition and effectiveness of the perimeter fence, and the banks of the ponds and lagoons. Problems with the direct contact barriers will be reported to the Plant Supervisor as soon as possible. Repairs to breaches in any of the control

systems will be completed within two working days. Repairs of degraded or damaged systems will be completed within five working days.

Inspectors will travel the perimeter of the SRWWTP inside the perimeter fence in search of potentially exposed wildlife. If exposed wildlife is discovered, the inspector will immediately notify the Plant Supervisor, who will notify ASM and the Manager, Environmental Engineering (Section 4). If the animal is successfully captured by ASM, it will be caged and transported to a federally licensed rehabilitation specialist as described in Section 4.

The daily inspections SRWWTP will be conducted primarily by the RSC SRWWTP operators under the direction of the Plant Supervisor. The RSC SRWWTP operators are responsible for the day-to-day operation of this facility as part of their normal job duties. If primary inspection personnel are unavailable, other trained staff or contractors familiar with this SRWWTP CEM Work plan will perform the inspections.

The inspectors will be advised of the goal of maintaining the site in a condition that is as oil-free as possible. They will be required to read and be familiar with this monitoring and response plan, undergo training described in Section 6, and document each inspection on the monitoring log sheets attached in Appendix F. The inspector will enter the date and time of each inspection and initial the entry.

A copy of the daily inspection log sheet will be provided to the Plant Supervisor on the first workday following each inspection. The Plant Supervisor will review the inspection results and determine if any reported situations or conditions require corrective action. These will be addressed as soon as possible and a Corrective Action Report (Appendix C) will be prepared. Any situation that could result in imminent exposure of wildlife will be reported to the Environmental Engineering Department as soon as possible.

6.2 Monthly Wildlife Surveys

Independent wildlife monitoring of the SRWWTP will be conducted monthly during migration seasons (March thru May and October thru December) by contract wildlife specialists beginning within two weeks of CEM Work Plan approval. Prior to approval of the plan, RSC will conduct independent monitoring to establish baseline information and establish a basis for interim actions. The goal of each survey is to independently evaluate the effectiveness of the direct contact protection, and wildlife deterrent programs implemented at the SRWWTP. This

6.3 Program Evaluation

The goal of the CEM Workplan is to comply with Section 7 of the Administrative Order and stop the exposure of migratory birds to oil in the SRWWTP. The ultimate performance criteria is:

- Have exposed animals or evidence of exposed animals been observed at the SRWWTP?

However, this criteria is not sufficient to evaluate the program. The evaluation criteria must encompass all the components of the plan intended to achieve the objective. In order to judge whether it is achieving its goal, RSC will also evaluate the following criteria:

1. Is all recoverable oil captured within containment areas at the end of each workday?
2. Are all areas of floating oil (greater than a sheen) covered, when not subject to response activities, to prevent wildlife direct contact?
3. Is all soil with visible oil contamination covered to prevent wildlife direct contact?
4. Are all wildlife deterrent systems in good repair and/or operating as specified in the CEM Workplan?
5. Have inspectors and wildlife technicians observed waterfowl on the ponds or lagoons or within the SRWWTP fence?
6. Are required and specified materials and equipment on hand and in usable condition or properly deployed?

The Manager, Environmental Engineering will be responsible for the continuing evaluation of RSC's performance against these criteria. MEC Environmental Consulting will assist in the evaluation of criteria #5 by reviewing the wildlife inspection logs. If substandard performance is identified, the Plant Supervisor will be instructed to take immediate actions to correct the deficiency. The Manger, Environmental Engineering will promptly review all corrective actions to verify appropriateness and implementation. Repeated deficiencies will be addressed through modification of procedures or additional training, as appropriate. All corrective actions will be documented in Corrective Action Reports and summarized in the monthly report (Section 8.0).

will be accomplished by documenting the types of wildlife observed within the SRWWTP fence, and any observed wildlife that has been impacted by oil.

Documentation of Wildlife Near the SRWWTP

During each monthly survey the following methods will be used to document wildlife usage of the areas within the ponds and lagoons control zone:

- Upon arrival, the surface water and shore of each pond and lagoon will be carefully surveyed with binoculars from several vantage points to identify and count birds and other observed wildlife. This part of the survey will be quietly conducted with minimal movement in an attempt to limit disturbance to wildlife. Location of wildlife at the SRWWTP will be recorded. A special emphasis will be made to accurately document the number and use by wading birds, shorebirds, and waterfowl. To the extent possible, any evidence of wildlife oiling will be recorded during these observations. Such evidence may include presence of observable oil on the feathers or fur, matting of plumage, or obvious contact of wildlife with free oil.
- The entire shoreline of each pond and lagoon will be systematically walked, with wildlife species, tracks, scats, remains, etc. being identified and counted. Locations of species believed to be utilizing the SRWWTP will be recorded.

Field records will include: 1) a description of habitat, such as water, littoral area, or shoreline, occupied by observed wildlife; 2) location at the SRWWTP where the observations were made; 3) identification of species or closet taxonomic group; and 4) number present. A 35-mm camera will be used to document visits. Attempts will be made to photograph wildlife using the SRWWTP and any evidence of oiling or other distress.

During each monthly visit, the surface of the SRWWTP pond and lagoon control zone will be systematically searched for live and dead wildlife that may show evidence of oil contamination. Species will be identified and counted, and their location at the SRWWTP will be recorded. Each dead animal will be carefully examined for oil. Any dead wildlife discovered during the survey will be photo-documented. Exposed or dead wildlife will be managed as described in Section 4.3.

7.0 Responsibilities, Management and Training

7.1 Responsibilities and Management

SRWWTP response and monitoring activities will be under the direct management of the RSC Environmental Engineering Department. Summaries of the project tasks, responsible parties, initially retained consultants and contractors, and qualifications are presented below:

Manager, Environmental Engineering (Program Evaluation) –Rouge Steel Company

The Manager, Environmental Engineering will have overall management responsibility for the SRWWTP monitoring and response program. The Manager will provide senior technical and resource management support, and routinely evaluate program performance against the criteria listed in Section 6.3. **Presently filling this position is Mr. Donald Windeler.** He is a licensed Professional Engineer with over 27 years environmental management experience. Mr. Windeler is HAZWOPER trained.

Environmental Engineer (Inspections and Coordination) –Rouge Steel Company

A Rouge Steel Environmental Engineer will be responsible for monitoring compliance with the CEM Work plan. The Environmental Engineer will review SRWWTP inspections, management of waste materials, the activities of contractors, and will identify deficiencies and implement corrective action as necessary. The Environmental Engineer will be the Managers alternate and will act on the Managers behalf during vacations and other periods of absence. Presently filling this position is Mr. Lowell Potvin. Mr. Potvin is an environmental professional with 34 years of steel mill-industrial experience. He is HAZWOPER trained.

Plant Supervisor (Field Supervision) –Rouge Steel Company

The RSC SRWWTP supervisor will be responsible for supervising personnel conducting daily inspections and in-house oil containment and removal, reviewing inspection reports, and assigning personnel to conduct follow-up actions. Presently filling this position is Mr. Tom Barstow.

Oil Removal and Response Contractor – Doetsch, Inc.

Doetsch is an oil spill response contractor based in Detroit, Michigan. Doetsch has crews available daily and was retained to remove all recoverable oil from the SRWWTP in March 2000. This work was successfully completed, and Doetsch has been retained to provided future services to provide technical support services to RSC and to remove recoverable oil from the SRWWTP as needed. All response personnel will be experienced in oil removal techniques and will have received appropriate HAZWOPER training.

Wildlife Specialists – Animal Services of Michigan L.L.C. (ASM)

ASM has over eight years experience specializing in wildlife management and nuisance wildlife deterrence. Its staff has over 50 years combined experience in wildlife management, wildlife biology, and wildlife rehabilitation. ASM holds state and federal licenses for nuisance wildlife control and wildlife rehabilitation (Appendix D). Its principals are trained in emergency veterinary medicine, chemical (tranquilizer) capture, and are state licensed animal control officers.

Wildlife Consultant - MEC Environmental Consulting

Since 1990, MEC Environmental Consulting has managed projects on bird control and biological studies (Appendix E). These have included planning and conduction baseline bird surveys, development of strategies for controlling birds, and bird control training. The principle, Mr. Michael E. Carlson, has conducted studies and projects, which include:

- Inspection of potential Peregrine Falcon release sites in New Hampshire and Vermont for Cornell University
- Assisted in conducting a breeding bird census of the Red Creek floodplain of Monroe County , New York
- Conducted a wetland inventory, including flora and fauna, in Rochester, New York
- Organized and competed with the Kowa-Optimed team in the "World Series of Birding" in New Jersey, from 1989 to 1993, which was awarded the E.S. Stearns Trophy each of these years.

- Supervised a four-year study of nocturnal avian migrants colliding with tall buildings in Detroit, Michigan, and Rochester, New York

Mr. Carlson has authored several papers on birds, including Birds of the Thousand Acre Swamp, published by the Rochester, New York Academy of Science in 1978.

Data Collection and Collation, Performance, and Progress Reporting – Environmental Strategies Corporation (ESC) ESC will provide consulting services for compiling and collating inspection reports, SRWWTP evaluation and characterization data, and oil removal and disposal data, and assisting in the preparation of the monthly project reports for submission to the EPA (Appendix F).

7.2 Training

All RSC personnel involved in implementing the CEM Work Plan will receive the following training:

- **Contents and Requirements of the EPA Compliance Order and CEM Work Plan** – This training will be developed and presented by the RSC Environmental Engineering Department, based in part on consultation with the listed wildlife specialists. It will focus on the requirements of Sections VII.A. and VII.B. of the EPA compliance order and the potential consequences of failure to comply. This training session also will address the goals, detailed procedures, and performance criteria associated with each section of the CEM Workplan. The training session is expected to require three to four hours to complete and will include instruction time at the SRWWTP.
- **Principles and Practice of Oil Containment and Skimming** – This training session will be presented by the Plant Supervisor and Doetsch. It will include instruction on the relationship between spilled oil and the water it impacts, wind and shoreline evaluation, boom configurations, skimmer types and applications, and general information about how oil can be moved and collected. The training session is expected to require approximately four hours and will include instruction time at the SRWWTP.

- **Wildlife Behavior and Deterrents** – ***ASM*** will present a three to four hour course on recognizing wildlife (with a particular emphasis on waterfowl) at the SRWWTP, identifying waterfowl species and their behavior and the use of various devices and techniques to deter waterfowl and wildlife from the SRWWTP. Personnel will be trained to use air horns and other devices in the vicinity of flocks or individual birds that take an interest in landing on the ponds and lagoons. Personnel will also be trained in recognizing animals exposed to oil and procedures for coordinating capture and rehabilitation of any exposed animals.

All training courses will be completed within 30 days after EPA approval of the CEM Work plan.

8.0 Reporting

RSC will submit monthly reports of activities and observations associated with the SRWWTP monitoring and response program. Each report will contain summaries of activities conducted in the previous month, summaries of inspection program findings, results of any sampling and analysis activities, documentation of oil removal and disposal, copies of inspection log sheets, and any pertinent photographs. Reports will be submitted to the USEPA Project Manager, Diane Sharrow, within 15 days after the end of each monthly monitoring period. Copies of the monthly report will be provided to the U.S. F&WS and MDEQ.

MEC Environmental Consulting will prepare quarterly reports documenting the activities and findings of the wildlife inspections. These reports will be submitted to the EPA with the monthly reports. These reports will include results from the three tasks described in Section 5.2, summary evaluations of SRWWTP wildlife deterrent measures, corrective actions taken, and recommendations for modifications if needed, and copies of all task documentation.

The monthly reports will include a written account of any capture and rehabilitation efforts for exposed wildlife. This will include reports from the rehabilitation agency. RSC will also include any pertinent photographs available.

9.0 Schedule

RSC will continue to conduct daily inspections, seven days per week, as described in Section 4.3. Monthly wildlife counts described in Section 4.3 will be conducted during 2000 and 2001. Annual wildlife counts will be conducted during the spring migration season each subsequent year.

RSC will implement the additional deterrents recommended in Section 4.1 in the spring of 2000. This will not be conditional on approval of this CEM Work Plan. RSC currently plans to conduct the training (Section 7.0) during March and April 2000.

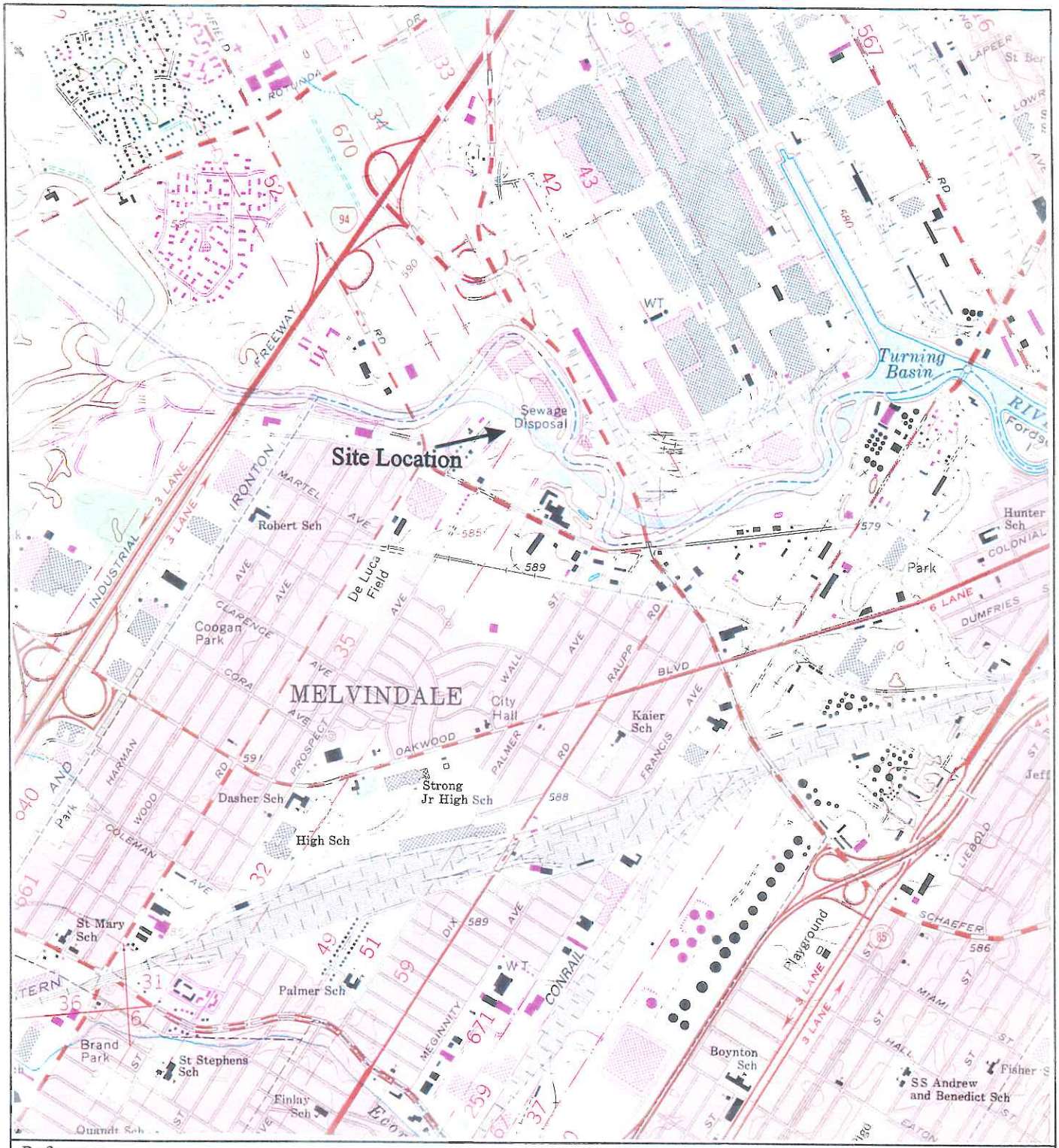
Table

Table 1

Operation and Maintenance Tasks for Continuing Emergency Measures
Schaefer Road WWTP
Rouge Steel
Dearborn, Michigan

Measure	O&M Task	Frequency	Responsible Party	Parts Needed	Location
Propane cannons	Move cannon Replace canister Lubricate	As needed As needed Weekly	WWTP operators	Propane canister	WWTP Office
Clear vegetation	Apply herbicide	As needed	WWTP operators	Herbicide	WWTP Office
Mylar streamers	Replace missing streamers	As needed	ASM	Mylar	Offsite at ASM
Oil skimmers	Recover skimmed oil for off-site disposal	As needed	WWTP operators, Oil reclamation contractor	-	-
Containment booms	Deploy portable booms	As needed	Doetsch	Booms	Offsite at Doetsch
Air Horn	Replace canister	As needed	WWTP operators	-	-
Recorded distress calls	Turn on system	As scheduled by Supervisor	WWTP operators	-	-

Figures



Reference

7.5 Minute Series Topographic Quadrangle
Dearborn, Michigan, US
Photorevised 1983 Scale 1:24,000

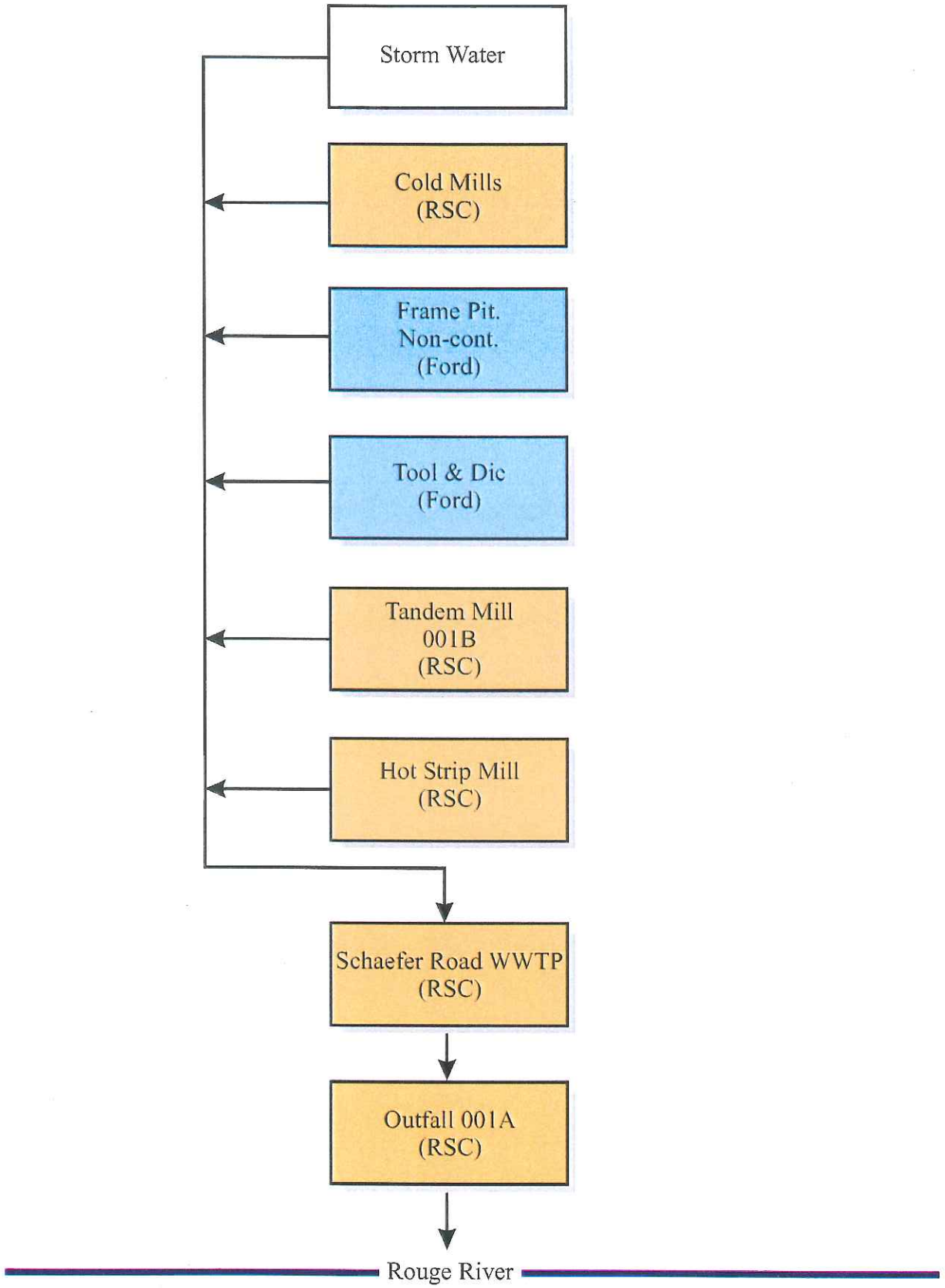
Quadrangle Location

MICHIGAN

0 2000 4000
Scale in Feet

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive Suite 900
Reston, Virginia 20190
703-709-6500

Figure 1
Site Location
Schaefer Road Wastewater Treatment Plant
Rouge Steel Co.
Dearborn, MI



ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive Suite 900
Reston, Virginia 20190
703-709-6500

Figure 2
Discharge Flow Schematic
Rouge Complex
Dearborn, Michigan

ROUGE01.CDR

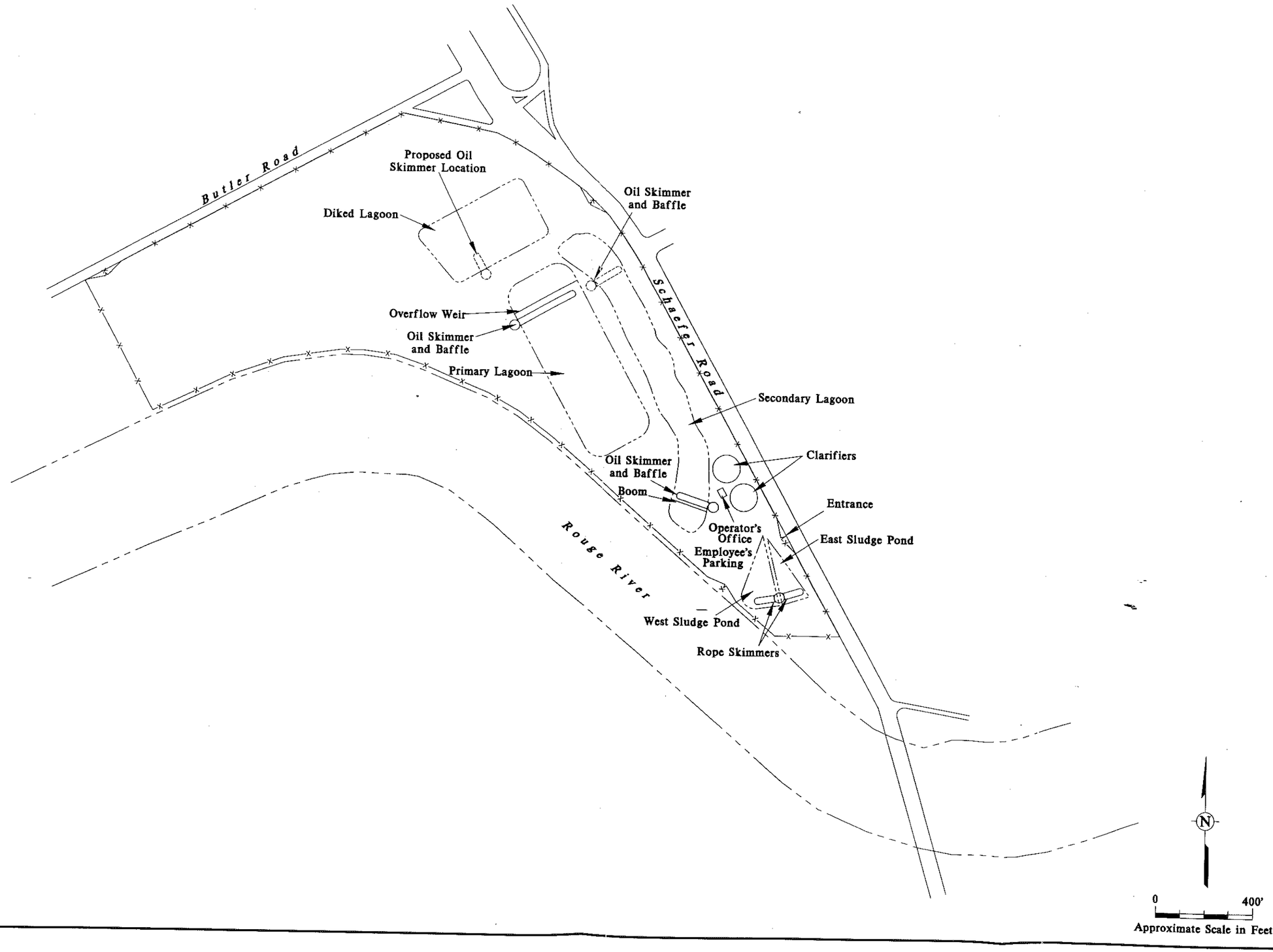


Figure 3
Schaefer Road Wastewater Treatment Plant
Rouge Steel Company
Dearborn, Michigan

ROUGE001.DWG

ENVIRONMENTAL STRATEGIES CORPORATION
11911 Freedom Drive Suite 900
Reston, Virginia 20190
703-709-6500
ESC

Appendix A – Contact List

Contact List

Rouge Steel Company	
Donald Windeler	313-845-3217
Lowell Potvin	313-323-1260
Environmental Pager	313-714-9501 (24-hours per day, seven days per week)
Tom Barstow	313-323-2673
Doetsch	
Day	810-755-2090
Bill Doetsch's pager (24-hours)	313-780-4976
Animal Services of Michigan, Glenn Cutright	
Office	734-461-0545
Mobile/Pager	734-216-5173
Michael Carlson, MEC Environmental Consulting,	248-585-3800
U.S. Fish and Wildlife Service – Sheila O'Connor	734-971-9752
U.S. Environmental Protection Agency – Diane Sharrow	312-886-6199

Appendix B – Administrative Order

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF	
Rouge Steel Company 3001 Miller Road Dearborn, Michigan 48121	
	ADMINISTRATIVE ORDER Docket No. R7003-5-00-001
Respondent	

I. JURISDICTION

The United States Environmental Protection Agency, Region 5 ("EPA"), issues this Administrative Order ("Order") pursuant to Section 7003(a) of the Solid Waste Disposal Act, as amended ("RCRA" or the "Act"), 42 U.S.C. § 6973(a) ("Section 7003").

II. INTRODUCTION

A. Rouge Steel Company is a Delaware corporation registered to conduct business in Michigan. Rouge Steel Company is the "Respondent" in this matter.

B. Respondent has handled "solid waste" within the meaning of Section 1004(27) of the Act, 42 U.S.C. § 6903(27), at a facility known as the Rouge Steel Company located in Dearborn, Michigan.

C. Based upon evidence received, EPA has determined that Respondent's handling of solid waste at the Rouge Steel Company may present an imminent and substantial endangerment to health or the environment.

D. Pursuant to Section 7003(a) of the Act, EPA has notified the State of Michigan of this action.

E. EPA hereby takes this action pursuant to Section 7003 having determined that issuance of this Order is necessary to protect health or the environment.

III. PARTIES BOUND

A. This Order shall apply to and be binding upon Respondent and its officers, employees, agents, successors and assigns.

B. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order within seven (7) calendar days of the date of Respondent's receipt of this Order or date of such retention, and shall condition all such contracts on compliance with the terms of this Order.

C. Respondent shall give notice to EPA thirty (30) or more days prior to transfer of ownership or operation of the Facility.

IV. FINDINGS OF FACT

A. GENERAL FINDINGS OF FACT

1. Respondent is the owner and operator of the Rouge Steel Company Facility. The Rouge Steel Company Facility is located between the Rouge River Channel and the Ford Motor River Rouge Complex, along Miller Road in City of Dearborn, County of Wayne, State of Michigan. See Exhibit 1.

2. The Rouge Steel Company Facility is a steel manufacturing plant. The Rouge Steel Company Facility includes on its site a wastewater treatment system commonly known as the "Schaeffer Road Wastewater Treatment Plant", or "Schaeffer Road WWTP". The Schaeffer Road WWTP treats wastewater from Rouge Steel Company's cold rolling mill, hot strip mill and pickling operations. The Schaeffer Road WWTP consists of several grit chambers, oil skim clarifiers, two oil polishing lagoons (known as the primary and secondary lagoons), and a sludge lagoon located between the Rouge River Channel to the west and south, Butler Road to the north and Schaeffer road to the east. See Exhibit 2. Both the cold rolling and hot strip mill wastewaters are heavily contaminated with rolling oils. The Schaeffer Road WWTP lagoons are specifically designed for oil removal. Some oil is removed through a series of booms and skimmers and then shipped off site for reclamation.

3. Rouge Steel Company continues to use the Schaeffer Road WWTP and specifically the lagoons which are covered with a layer of oil.

4. Many oils typically contain petroleum hydrocarbons. Petroleum hydrocarbons contain constituents that are known to be hazardous to health or the environment, including: benzene, toluene, ethyl benzene and xylene. Benzene is a known human and animal carcinogen.

5. Oil presents acute and chronic hazards to both fish and wildlife. An oily layer on surface water bodies such as basins and lagoons may cause drowning, toxicosis, and/or hypothermia to wildlife which come into contact with it. Birds with oiled plumage may also lethally oil their eggs and young.

6. Wildlife mortality in oily surface water bodies can go undetected because small carcasses such as songbirds can be difficult to detect, carcasses can sink, and carcasses can be scavenged by other animals.

7. Several federal endangered species are found in the Wayne County area, including the bald eagle and peregrine falcon.

8. Rouge Steel Company also lies within the Lake Erie/Detroit River flyway for many migratory bird species.

9. The EPA and U.S. Fish and Wildlife Service (F&WS) observed migratory birds utilizing the area surrounding the Schaeffer Road WWTP including a kildeer, a hairy woodpecker, cardinals, mourning doves and various small songbirds. The Schaeffer Road WWTP also was observed to contain migratory bird habitat in that the numerous plant and tree species present provided cover and food sources for migratory songbirds.

10. Respondent has placed or stored solid waste in the lagoons at the Schaeffer Road WWTP.

B. FINDINGS OF FACT REGARDING EFFECTS ON THE ENVIRONMENT

11. On October 20, 1999, F&WS special agents and the EPA inspector observed and recovered the remains of one (1) dead migratory bird of a gull species at the secondary (or supplemental) lagoon. The observed bird mortality appears to be as the result of exposed oil waste at the Schaeffer Road WWTP.

12. On October 20, 1999, F&WS Special Agents and the EPA inspector observed that at the Schaeffer Road WWTP, oil wastes covered the surface of the water of the oil skim clarifiers and the oil polishing lagoons. This layer of oily waste formed on the surface of the clarifiers and the lagoons, despite the presence of booms and skimmers. The embankments of both lagoons were also heavily stained with oil.

13. On October 20, 1999, F&WS special agents and the EPA inspector observed that booms, skimmers and storage "silos" at the Schaeffer Road WWTP also contained oily waste. ?

14. Oil will continue to accumulate on the surface of the Schaeffer Road WWTP as long as oily water continues to be discharged to the oil polishing lagoons.

15. On October 20, 1999, Rouge Steel Company employees told the F&WS special agents and the EPA inspector that oil covered birds such as Canada geese and an egret had been recovered from the lagoons at the Schaeffer Road WWTP and taken to the City of Dearborn for possible rehabilitation.

16. Successful rehabilitation of oiled birds is dependent on many factors, including the amount of oiling, the age and species of bird, how long the bird has been oiled, how long the bird has been exposed to the environment, and the method of recovery.

17. A F&WS special agent contacted the City of Dearborn Animal Control Officer and a wildlife rehabilitator utilized by the City. Both individuals recalled that several oiled Canada geese had been recovered from the Rouge Steel Company property in the summer of 1999, and that numerous oiled birds have been recovered from the Rouge Steel Company property in previous years.

V. CONCLUSIONS OF LAW

A. Respondent is a "person" within the meaning of Section 1004(15) of the Act, 42 U.S.C. § 6903(15).

B. Wastes at the Schaeffer Road WWTP located at the Rouge Steel Company Facility, specifically oily waste waters at the oil skim clarifiers and the oil polishing lagoons are solid wastes as defined in Section 1004(27) of the Act, 42 U.S.C. § 6903(27).

C. Respondent has contributed or is contributing to the handling, storage, treatment or disposal of solid waste at the oil skim clarifiers and the oil polishing lagoons.

D. Respondent's past or present handling, storage, treatment, transportation or disposal of solid waste at the Schaeffer Road WWTP may present an imminent and substantial endangerment to health or the environment within the meaning of Section 7003 of the Act, 42 U.S.C. § 6973.

VI. ORDER

Based on the above and on other information contained in the administrative record for this Order, EPA has determined that the activities required by this Order are necessary to protect health or the environment. EPA, therefore, hereby orders Respondent to perform as specified in this Order in the manner and by the dates specified herein. All work undertaken pursuant to this Order shall be performed in a manner consistent with this Order, including all documents incorporated herein pursuant to this Order, and all applicable laws.

VII. WORK TO BE PERFORMED

A. IMMEDIATE EMERGENCY MEASURES

Within five (5) days of receiving this Order by facsimile or any other means, Respondent shall take immediate measures to stop the exposure of migratory birds to solid wastes at the Schaeffer Road WWTP. Such immediate measures may include, but are not limited to, physical barriers and audio or visual distractions designed to deter and discourage birds from landing at the clarifiers and lagoons.

B. CONTINUING EMERGENCY MEASURES

1. Within fifteen (15) calendar days of the effective date of this Order, Respondent shall submit to EPA for approval a Continuing Emergency Measures Workplan ("CEM Workplan") that proposes Continuing Emergency Measures necessary to protect wildlife or wildlife habitat from any harmful effects of solid waste at the Rouge Steel Company Facility, including the Schaeffer Road WWTP, and that describes the emergency measures that Respondent has implemented pursuant to Section VII.A., above.

    a. Continuing Emergency Measures shall include, but not be limited to, a method for permanently and continuously eliminating contact by wildlife with any solid waste, including any oily surfaces, at the Schaeffer Road WWTP.

b. The CEM Workplan shall describe:

(1) the selected Continuing Emergency Measures;

(2) the procedures and a schedule for implementation; and

(3) an operations and maintenance plan, which, if followed, will result in uninterrupted effectiveness of the chosen Continuing Emergency Measure(s).

2. EPA shall notify Respondent in writing of any comments EPA may have on the CEM Workplan and schedule. If EPA determines that the CEM Workplan, including the schedule, is approvable, EPA will provide written approval of the CEM Workplan and schedule to Respondent. If EPA has comments on the CEM Workplan and/or schedule, EPA shall provide its comments in writing to Respondent. Within seven (7) days of receiving EPA's comments, Respondent shall incorporate those comments into the CEM Workplan and resubmit the CEM Workplan to EPA.

3. Concurrently with resubmitting to EPA the CEM Workplan incorporating EPA's comments, Respondent shall begin implementation of the Continuing Emergency Measures required in the CEM Workplan, and shall complete all Continuing Emergency Measures in accordance with the schedule approved in the CEM Workplan.

4. Within fifteen (15) calendar days of completing the Continuing Emergency Measures required in the CEM Workplan, Respondent shall provide a written report (Continuing Emergency Measures Implementation Report) to EPA for approval detailing and confirming the completion of the activities conducted pursuant to the CEM Workplan.

C. MONITORING AND REPORTING

During implementation of any actions taken pursuant to Section VII of this Order, Respondent shall submit a report by the fifteenth of every month describing all activities that have been taken pursuant to this Order during the prior month as well as all sampling and monitoring results.

VIII. ACCESS

A. Respondent shall permit full site access to EPA, the U.S. Department of Interior ("DOI") and the State of Michigan, and their authorized representatives for the purposes of oversight of and implementation of this Order.

B. Respondent shall use its best efforts to assure that EPA, DOI and the State of Michigan personnel or authorized representatives are allowed access to any laboratory utilized by Respondent in implementing this Order.

IX. GENERAL PROVISIONS

A. Respondent shall submit a notice of intent to comply on or before the effective date of this Order.

B. All plans and documents submitted under any section of this Order shall, upon approval by EPA, be incorporated by reference into this Order as if set forth fully herein.

C. Within ten (10) days of the effective date of this Order, Respondent shall notify EPA, in writing, of the name, title, and qualifications of the personnel and contractors to be used in carrying out the work required by Section VII of this Order. Respondent shall demonstrate to EPA that each proposed contractor possesses all appropriate qualifications.

D. Respondent shall obtain any permits or approvals which are necessary to perform work on or outside the steel manufacturing plant under applicable law and shall submit timely applications and requests for any such permits and approvals.

E. Respondent shall employ sound scientific, engineering, and construction practices and principles under this Order.

X. AVAILABILITY AND RETENTION OF INFORMATION

A. The administrative record supporting this Order shall be available for public review by contacting Gaylene Vasaturo (312 886-1811) of the United States Environmental Protection Agency, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604.

B. Respondent shall make available to EPA, and shall retain, during the pendency of this Order and for a period of three (3) years after its termination, all records and documents in Respondent's possession, custody, or control, or in the

possession, custody or control of their contractors and subcontractors, which relate to the performance of this Order, including but not limited to documents reflecting the results of any sampling, tests or other data or information generated or acquired by Respondent, or on Respondent's behalf, with respect to the implementation of this Order.

C. After the three (3) year period of document retention, Respondent shall notify EPA and the State at least ninety (90) calendar days prior to the destruction of any such documents, and upon request by EPA or the State of Michigan, shall deliver the documents to EPA or the State of Michigan.

D. Respondent may assert confidentiality claims pursuant to 40 C.F.R. Part 2.

E. Information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is submitted to the EPA, the public may be given access to such information without further notice to Respondent.

XI. QUALITY ASSURANCE

A. Respondent shall use quality assurance, quality control, data validation, and chain of custody procedures for all data gathered under this Order in accordance with EPA SW-846, Third Edition, or subsequent edition as then in effect.

B. Respondent shall, upon EPA request, provide for analysis by EPA of samples submitted for quality assurance monitoring by the laboratory(ies) performing analyses required by this Order.

C. Respondent shall make available to EPA and the State of Michigan the results of all sampling and/or tests or other data generated by Respondent with respect to the implementation of this Order.

D. At the request of any party, the parties shall allow split or duplicate samples to be taken by the requestor or their authorized representatives, of any samples collected by any party to this Order. Respondent shall notify EPA no less than fourteen (14) days in advance of any sample collection activity conducted pursuant to Section VII.

XII. NOTICES

Whenever under the terms of this Order, notice is required to be given, and/or a report or other document is required to be forwarded by one party to another, such correspondence shall be sent by certified mail or hand carried to the following individuals at the addresses specified below:

Ms. Diane Sharrow (DE-9J)
Project Manager
Enforcement and Compliance Assurance Branch
U.S. EPA, Region 5
77 West Jackson Blvd.
Chicago, Illinois 60604
As to the State:

JoAnn Merrick, Chief
Enforcement Program Section
Waste Management Division
Department of Environmental Quality
State of Michigan
P.O. Box 30241
Lansing, MI 48909

If the date for submission of any item or notification required by this Order falls upon a weekend or State or Federal holiday, the time period for submission of that item or notification is extended to the next Federal working day following the weekend or holiday.

XIII. RESERVATION OF RIGHTS

A. Nothing in this Order shall limit the information gathering, access, and response authority of the United States under any other applicable law, nor shall it limit the authority of EPA to issue additional orders to Respondent as may be necessary.

B. This Order shall not be construed as a waiver or limitation of any rights, remedies, powers and/or authorities which EPA has under the Act, CERCLA or any other applicable law.

C. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any applicable laws and regulations and with any of the requirements of this Order, including but not limited to, the right to disapprove of work performed by Respondent, to request that

Respondent perform additional tasks, and the right to perform any portion of the work herein.

D. Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligation to comply with the Act and/or any other applicable State or Federal law or regulation, and any condition of any permit issued under the Act or any other applicable law or regulation.

XIV. FAILURE TO COMPLY

Any failure by Respondent to comply with this Order shall subject Respondent to civil penalties of not more than $5,500.00 for each day of each failure to comply with this Order. Section 7003(b) of the Act, 42 U.S.C. § 6973(b), and the May 9, 1997, Memorandum "Modifications to EPA Penalty Policies to Implement the Civil Monetary Penalty Inflation Rule (Pursuant to the Debt Collection Improvement Act of 1996)".

XV. OPPORTUNITY TO CONFER AND MODIFICATION

A. Respondent has the opportunity to confer informally with EPA concerning the terms and applicability of this Order. If Respondent desires a conference, Respondent must contact EPA Region 5 to schedule such a conference within three (3) calendar days of receipt of this Order.

B. If EPA determines that any element of this Order, including work to be performed or schedules, warrants modification after a conference is held, EPA will modify the Order in writing, file the modification with the Regional Hearing Clerk and issue a copy to Respondent.

C. Except as otherwise provided in this Order, no modification to this Order shall be effective unless and until it is issued in writing by EPA and filed with the Regional Hearing Clerk.

XVI. EFFECTIVE AND TERMINATION DATES

A. This Order shall become effective at 4:00pm (Central Standard Time) on the fifth (5) calendar day after the date Respondent receives a copy of the executed Order by facsimile or any other means.

B. This Order shall terminate upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the requirements of this Order, including any additional tasks determined by EPA to be required

pursuant to this Order, but not including record retention, have been satisfactorily completed.

IT IS SO ORDERED:

For the United States Environmental Protection Agency, Region 5

Date: March 1, 2000

By: Joseph M. Boyle

Joseph M. Boyle, Chief
Enforcement and Compliance
Assurance Branch

Appendix C – Inspection Forms and Instructions

SRWWTP
DAILY OIL MANAGEMENT INSPECTION LOG SHEET INSTRUCTIONS

Inspection

Enter date and time of day for start of inspection.

Recoverable Oil Present

Visually inspect the primary lagoon, secondary lagoon, diked lagoon and sludge ponds. If recoverable oil is observed in areas where it will not be contained and recovered by the skimmers, enter Y. If recoverable oil is observed in areas not covered by the skimmer, enter the location (e.g., NE corer, S bank). If no oil is observed, enter N.

All Recoverable Oil Contained

For each area where recoverable oil is observed, determine if the oil is completely contained within boom structures or other containment systems. Complete containment means that the oil cannot move from its current location as a result of wind shifts. If all recoverable oil is contained, enter Y. If areas of uncontained recoverable oil are observed, enter the location (e.g., NE corner, S bank) into the box.

Comments, Explanations and Response Action Taken

Enter any comments or explanations needed to clarify inspection observations or to note situations not specifically addressed on the log sheet. Briefly describe any interim response actions undertaken during the inspection to correct potential problems observed.

Inspector

The inspector must initial each inspection entry into the log sheet.

NOTE: All log sheets entries must be in <u>ink</u>!

SRWWTP DAILY WILDLIFE DETERRENCE INSPECTION LOG SHEET

For The Week Beginning Monday _____

Inspection		Staus of Deterrent Systems					Wildlife Observations		
Date	Time	Fence		Bank Cover	Noise Cannon		Wildlife Observed (N or Species Oberserved)	Exposed Wildlife Observed (N or Species Observed)[3]	Inspector (Initials)
		Breach (Y/N)[1]	Damage (Y/N)[1]	Oiled (Y/N)[1]	Operating Properly (Y/N)[2]	Location Moved (Y/N)			
	AM								
	PM								
	AM								
	PM								
	AM								
	PM								
	AM								
	PM								
	AM								
	PM								
	AM								
	PM								
	AM								
	PM								

[1] "Yes" (Y) entry requires 1) description of location (e.g., NE corner, E bank) on log sheet and 2) notification of Plant Supervisor as soon as possible

[2] "No" (N) entry requires 1) description of location (e.g., NE corner, E bank) on log sheet and 2) notification of Plant Supervisor as soon as possible

[3] If live exposed animals are observed, immediate notification of the Environmental Supervisor and implementation of animal capture procedures are required

FORM SRWWTP 1.02
DATE: 03/17/2000

q:\excel\rouge\CEMPlan

SRWWTP - Wildlife Deterrence Log

Date	Time	Type of Bird(s) Observed	Overflight ? (Y/N)	Showed Interest in Pond ?(Y/N)	Location of Bird(s)	Number of Shots Fired	Result	Inspector (Initials)

FORM SRWWTP 1.03
DATE: 03/17/2000

SRWWTP DAILY OIL MANAGEMENT INSPECTION LOG SHEET

For The Week Beginning Monday _____

Inspection		Any recoverable oil not captured by skimmers?				All Recoverable Oil Contained (Y or Location of Uncontained Oil)[2]	Comments, Explanations and Response Action, Taken	Inspector (Initials)
Date	Time	Primary Lagoon	Secondary Lagoon	Sludge Ponds	Diked Lagoon			
	AM							
	PM							
	AM							
	PM							
	AM							
	PM							
	AM							
	PM							
	AM							
	PM							
	AM							
	PM							
	AM							
	PM							

[1] A Yes (Y) entry requires notification of Plant Supervisor as soon as possible

[2] A "Location" entry (e.a. NE corner, E bank, center) requires notification of Plant Supervisor as soon as possible

SRWWTP

DAILY WILDLIFE INSPECTION LOG SHEET INSTRUCTIONS

NOTE: All log sheet entries must be in ink!

Inspection

Enter date and time for start of inspection.

Status of Deterrent Systems

Fence

Visually inspect the perimeter fence. Identify any breaches (openings large enough to allow wildlife passage) or areas of damage (deterioration or damage that may soon result to a breach). If such areas are observed, enter Y in the appropriate box and indicate location (e.g., S corner, E side). If no such areas are observed, enter N.

Noise Cannon(s)

The inspector must be present long enough to note at least two firings of each noise cannon to ensure that it is firing properly. If it is, enter Y in the box. If it is not, enter N. The cannon must be relocated every day. If the inspector relocates the cannon or it has been relocated since the last inspection, enter Y in the box. If not, enter N.

Wildlife Observed

If birds or animals are observed inside the perimeter fence or on the ponds, enter the types (species if known) of animal(s) observed and their approximate locations (e.g., Primary Lagoon, E bank). If no wildlife is observed, enter N in the box.

Exposed Wildlife Observed

If any oiled inappropriate behaving animals, or animal carcasses, are observed during the inspection, enter the types (species if known) of animal(s) and their approximate locations (e.g., SRWWTP, E bank). If live exposed animals are observed, notify the Plant Supervisor immediately and initiate capture procedures. If no exposed wildlife is observed, enter N in the box.

Inspector

The SRWWTP inspector must initial each inspection entry into the log sheet.

Wildlife Deterrence Log Instructions

Every time the inspector uses an air horn or other method to scare birds or animals from the pond, record it on this log sheet.

NOTE: All log sheet entries must be in ink!

SRWWTP CEM PROGRAM
ROUGE STEEL CORPORATION

CORRECTIVE ACTION REPORT

Description of Incident/Deficiency:

- ☐ System/Equipment Failure
- ☐ Exposed Wildlife
- ☐ Procedural deficiency
- ☐ Other

Date of Incident/Deficiency:

How Discovered:

- ☐ Daily Inspection
- ☐ Management Review
- ☐ Incidental Observation
- ☐ Other (describe)

Description of Corrective Action(s) with Dates:

Signature _____ Date _____

Appendix D – Animal Services of Michigan Permits and Licenses

Animal Services of Michigan

Federal and State Wildlife Permits

Michigan Wildlife Rehabilitation Permit

Michigan Wildlife Damage Permit #RC119

Federal Rehabilitation Permit #790045

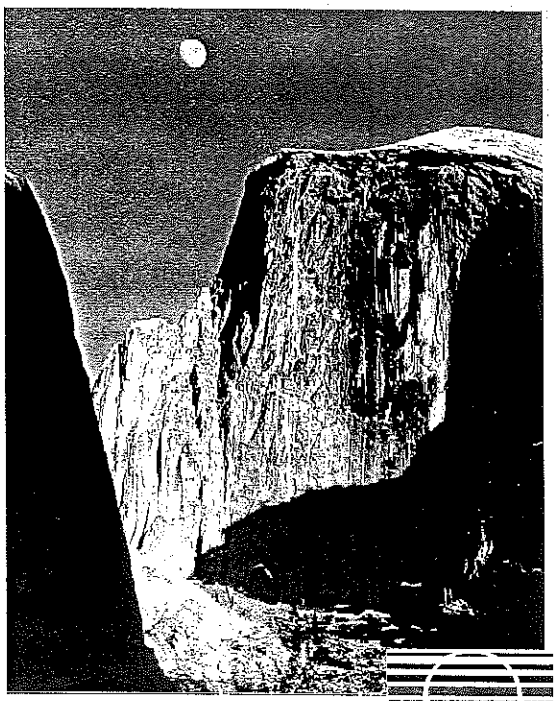
Subpermittee under "Bird Rescue of Huron Valley" for rehabilitation of federally protected and migratory species

Appendix F – Environmental Strategies Corporation Qualifications

Appendix E – Wildlife Consultant Qualifications

Introduction

Environmental Strategies Corporation (ESC) is an environmental consulting, management, and engineering firm that has earned an unequaled position as a leading environmental services organization by providing business and industry with creative environmental solutions of the highest quality.



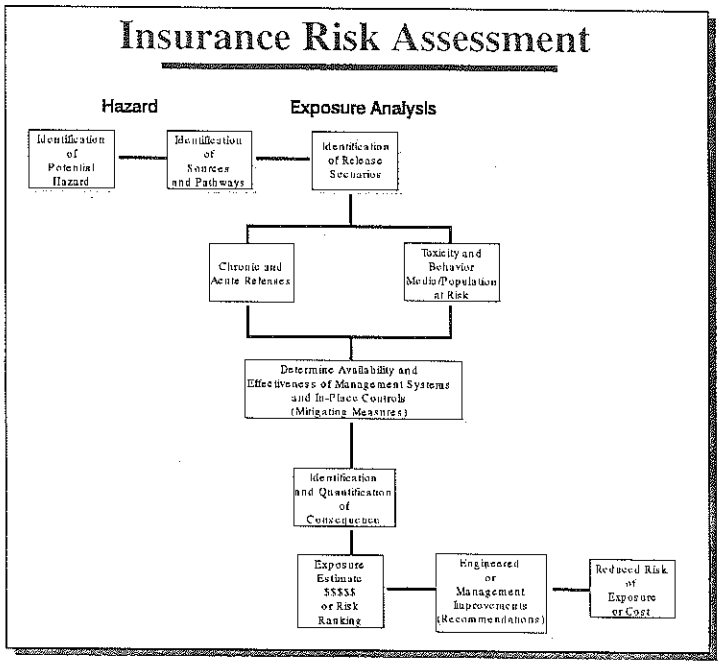
Overview

This document describes ESC and its services. It begins with important information about the company and our successful business philosophy. Individual services that ESC provides are then described. The document concludes with a brief explanation of ESC's affiliated liability transfer company, Industrial Recovery Capital Holdings Company (IRCC).

Why Choose ESC?

- *Flat Organization.* Every ESC client is assigned (or selects) an ESC senior leader who acts as a dedicated client representative. The senior leader oversees all the work for the client, regardless of location. This ensures consistent service based on the needs of the client.
- *Client Service.* ESC's professionals recognize that we are in a service industry. This means that our clients promptly receive return phone calls, timely work products, and competitive pricing.
- *Environmental Solutions.* ESC and its affiliate, Industrial Recovery Capital Holdings Company (IRCC) focus on eliminating, not studying, environmental problems.
- *Success.* Over the past 5 years, ESC has grown at a measured, consistent rate of 15 – 20%. This growth occurred because ESC attracted quality employees while developing dedicated, loyal client relationships; our growth has not been accomplished through acquiring other consulting firms.
- *Quality.* ESC's professionals produce technically sound, well-written reports that analyze the implications and consequences of the project results, and do not merely present data.

ESC has been hired by a number of insurers to help them develop underwriting criteria for pollution insurance products. The company worked with a large property insurer to develop a product that would extend coverage to contamination of land and water, and ESC currently provides engineering support in the placement of these coverages. ESC's input was critical for the insurer to be able to predict the maximum foreseeable losses under these policies. This entailed not only predicting what types of losses could occur, but also the costs of the appropriate response technologies.



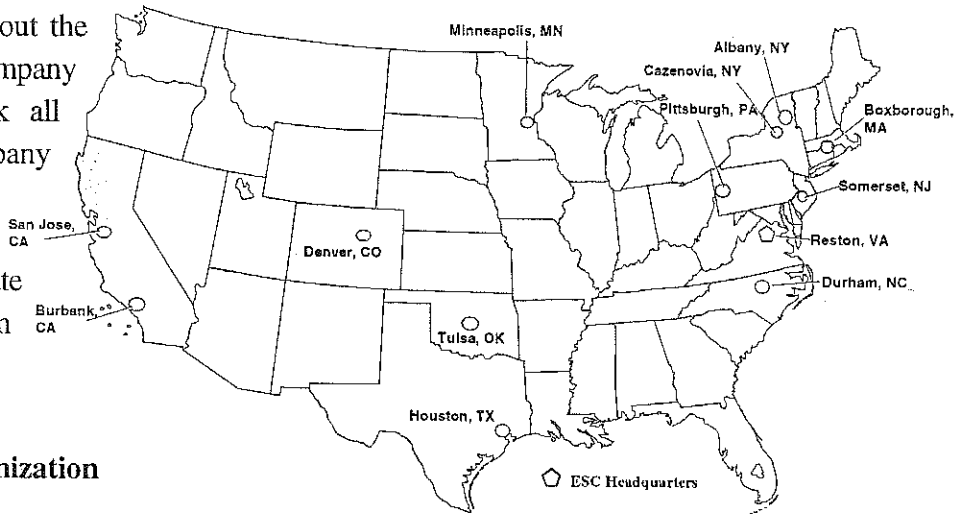
ESC has developed probabilistic models to determine the likely costs of environmental claims to support negotiations between insurers and insureds. As an example, for a number of utilities, ESC has been asked to evaluate the remedial options at their manufactured gas plant sites and determine the most likely remedial costs for those sites. The utilities have used this information to support their coverage claims against their general liability insurers. ESC's decision tree analytical models have been widely used by insurers and insureds to develop and evaluate claims costs. ESC's costing has served as the basis for many claim settlements. A tribute to ESC's expertise in environmental claims is the fact that we have been sought to provide claims support for insureds, insurers, and reinsurers.

Mergers and Acquisitions

ESC has been called on by some of the world's largest corporations and investment firms to evaluate the potential for environmental liabilities from sites under consideration for mergers or acquisitions (see example below). ESC's products not only indicate the specific environmental issues likely to be faced by a purchaser but also delineate the costs involved with these issues. These cost estimates have then been used to structure the environmental matters sections of the agreements, resulting in price deductions, escrow development, lease buybacks, and other mechanisms as appropriate to the size and scope of the liabilities. ESC's role in these

ESC has been called on by some of the world's largest corporations and investment firms to evaluate the potential for environmental liabilities from properties under consideration for mergers or acquisitions.

ESC has 13 offices throughout the United States, but the company successfully performs work all over the world. The company possesses all the capabilities necessary to protect the world's corporate community from environmental.



ESC's Structure and Organization Works for Clients

ESC is successful because we focus on client needs and employee retention:

- Every client is "owned" by an ESC senior leader who serves as the client's primary point of contact, ensures ESC's products are tailored to the client's specific needs, and has ultimate responsibility for that client's satisfaction.
- ESC is able to offer quality, continuity, and consistency to its clients because the company has one of the most rigorous new employee screening processes and lowest employee turnover rates in the industry.
- ESC is not broken into discipline-based or geographic divisions. Every client has access to the entire technical resources of the company, as needed.

ESC's clientele are comprised of a broad spectrum of domestic and international corporations. ESC recognizes that to properly represent its clients, it may need to challenge conventional interpretation of government regulations, policies, or procedures. To be certain that it can remain free of conflict, ESC does not and will not work for government regulators.

ESC's Business Philosophy

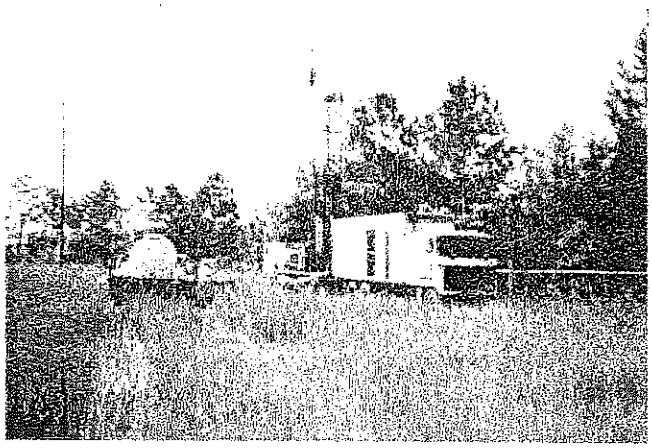
- Service to industry
- No work for regulatory agencies
- Data with options, evaluation, strategies
- Solutions tailored to clients' needs
- Bottom line/decision oriented
- Always seeking project closure
- Proactive technical negotiations with agencies
- Partnership with clients and employees
- Continuous improvement and measurement

Investigations, Engineering, Risk Assessment, and Remediation

The most critical phase of an investigation and remediation project starts long before the first samples are collected and analyzed. That phase consists of compiling and fully comprehending all the remedial regulatory programs that could possibly apply to a site. These could include Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Resource Conservation & Recovery Act (RCRA) corrective action; underground storage tank programs; and state mandatory, voluntary, and brownfields programs. ESC has a history of completing remediation projects quickly and cost effectively. This is achieved by focusing on the possible end points, narrowing down the options quickly and gathering only the necessary data to support the end point.

ESC has a history of completing remediation projects quickly and cost effectively.

ESC approaches remediation projects as an opportunity to provide its clients with cost-effective strategies for fulfilling applicable regulatory requirements while minimizing or eliminating future liabilities. ESC has investigated and remediated hundreds of sites ranging considerably in size and complexity, and functioning under diverse regulatory programs. From this experience, ESC has found that the primary way to control costs and reduce the time to completion is to work under the least restrictive regulatory program. The more project control that rests with the company's clients and not with an agency, the less opportunity regulators will have to interact and equivocate or otherwise expand the schedule and increase the costs. Knowing which are the least restrictive regulatory programs and what is required to operate under them permits ESC to tailor presentations to regulators to create a bias for these programs.



Investigation and remediation projects represent over 50 percent of ESC's annual revenue. These projects range from a quick round of sampling to broadly characterize a site to multimillion dollar, multiple-site cleanup programs. The company currently is investigating and remediating dozens of sites being addressed under voluntary responses, state consent orders, or in the Superfund or RCRA corrective action programs. Because ESC regularly assists insurers in managing their environmental claims by assessing the adequacy of the investigative and remedial responses, the company can aid clients' cost recovery efforts by utilizing technical approaches that are consistently accepted by insurance companies.

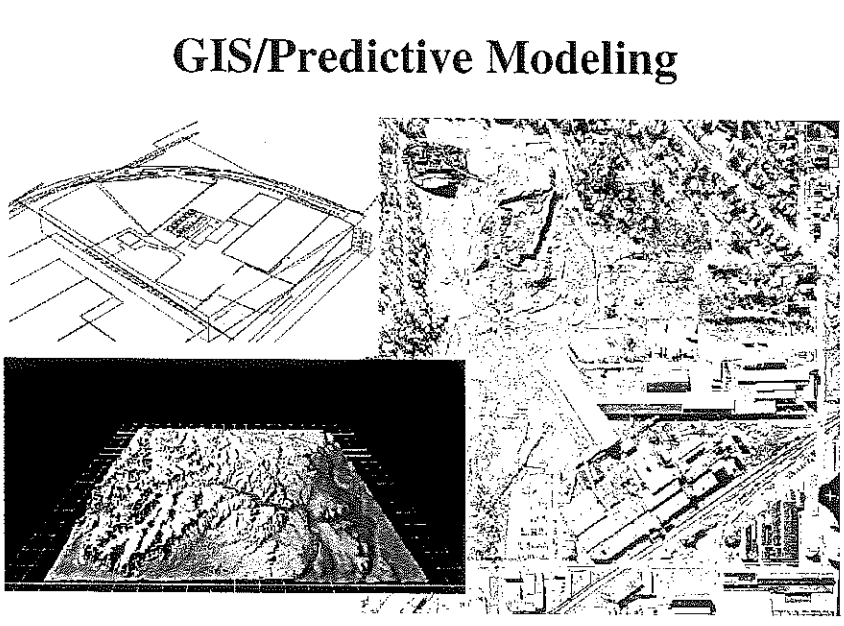
ESC's investigation and remediation projects at commercial and industrial facilities have involved all the major constituents of concern, including petroleum hydrocarbons, polycyclic aromatic hydrocarbons, solvents, pesticides and herbicides, polychlorinated biphenyls, dioxins, acids and bases, and heavy metals. We have performed cost-effective investigation and remediation projects at large industrial facilities, such as chemical manufacturers, petroleum refineries, electronic equipment manufacturers, steel mills, lead smelters, solvent recyclers, and manufactured gas plants, that involved a myriad of constituents.

These experiences in investigating and remediating sites have led ESC to develop the following planning, execution, and negotiation strategies.

Strategic Planning

To control remediation projects effectively, knowledge of the range of the anticipated expenditures is required. For this, planning is the key. Like any business venture, a remediation project should start with a mission and a business plan. This approach should be as fundamental to environmental management as is "protection of human health and the environment."

Costs are estimated, monitored, and controlled by the project team that ESC forms with its client's environmental staff and counsel. The strategic plan must cover all aspects of the project, including financial, project management, regulatory, legal, technical, and construction. ESC teams with its clients to ensure all necessary expertise is available.



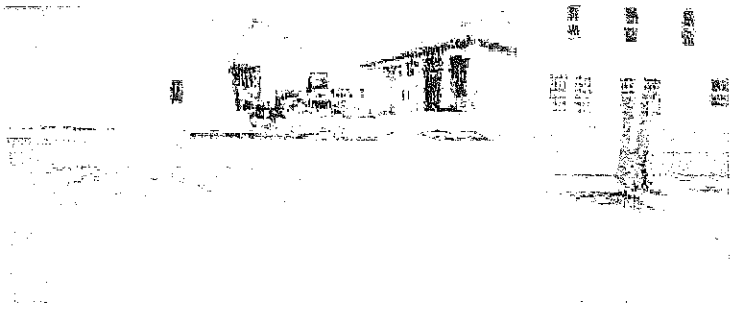
By developing a clear plan for the project with defined decision points, ESC and its clients can streamline every phase of the process. The investigation gets focused on collecting only those data needed for the specific decisions that must be made about the site, avoiding endless research projects or fishing expeditions. Project meetings, reports, and other correspondence are all centered on the defined goals. Avoiding wasted efforts results in notable cost savings throughout the project. Carefully planned projects avoid redundant or unnecessary investigations, wasted design efforts, and excessive

negotiations with regulatory agencies on minor issues, because their attention gets focused on the overall goals.

By taking a cooperative, yet firm, approach in dealing with regulatory agencies, ESC works to include them as advocates and partners rather than as adversaries. ESC thoroughly anticipates regulators' concerns before submitting proposals and work plans for investigative and remedial work. A constructive relationship with regulatory personnel allows our clients greater control of a project's technical scope, schedule, and costs.

Project Execution

ESC's strategic plans for remedial projects carry them from start to finish. The strategic plan permits the site characterization or remedial investigation phase to be used to collect the information needed to make remedial decisions, rather than fully characterizing a site. This helps control costs. The data collected are used to support human health and ecological risk assessments, the feasibility studies, and any necessary remedial design.



ESC plans remedial investigations by defining the data required to complete the project, compiling all known information, and determining what is missing. Filling these data gaps is best done by a phased investigation, in which the findings are assessed against anticipated conditions and project data requirements, and subsequent logical and systematic tasks are executed. All data collected are carefully reviewed to ensure they are sufficient to support the subsequent decisions to be made and documents that need to be prepared.

ESC recognizes that every document in a remedial project is an advocacy document.

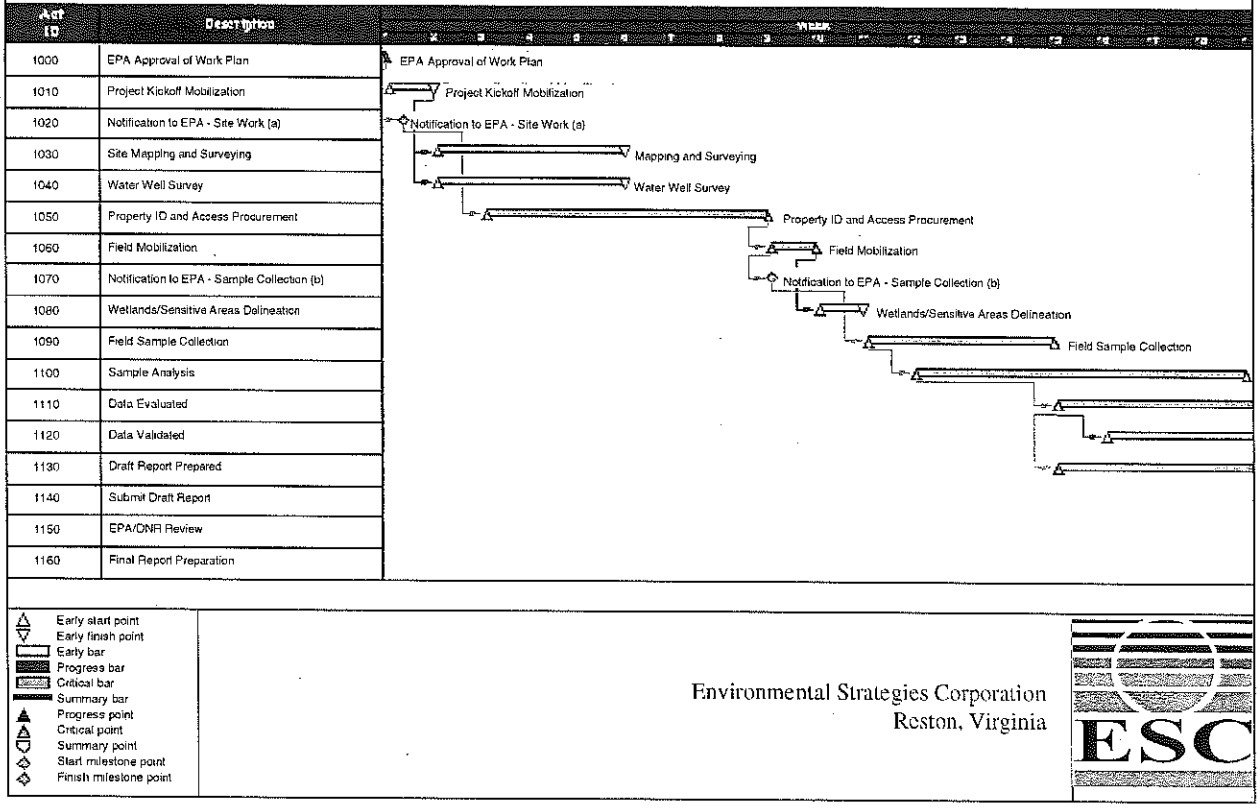
The collected data form the basis of all subsequent decision making on the project, including that of outside parties, such as regulators. As such, not only must data collection be thorough, but data presentation must be clear and concise. ESC recognizes that every document in a remedial project, including work plans, investigation reports, remedial designs, and close-out reports, is an advocacy document. Its job is to convince the reader that the remedial approach selected or the closure decision reached is correct. As such, the data must be compiled, organized, and

summarized in lucid and meaningful ways, including extensive pictorial and graphical presentation.

When ESC designs the chosen alternative for remediation, it remains conscious of the construction costs associated with implementation. Additional predesign investigations are performed only if the information to be collected is likely to significantly reduce remedial costs.

Figure 7

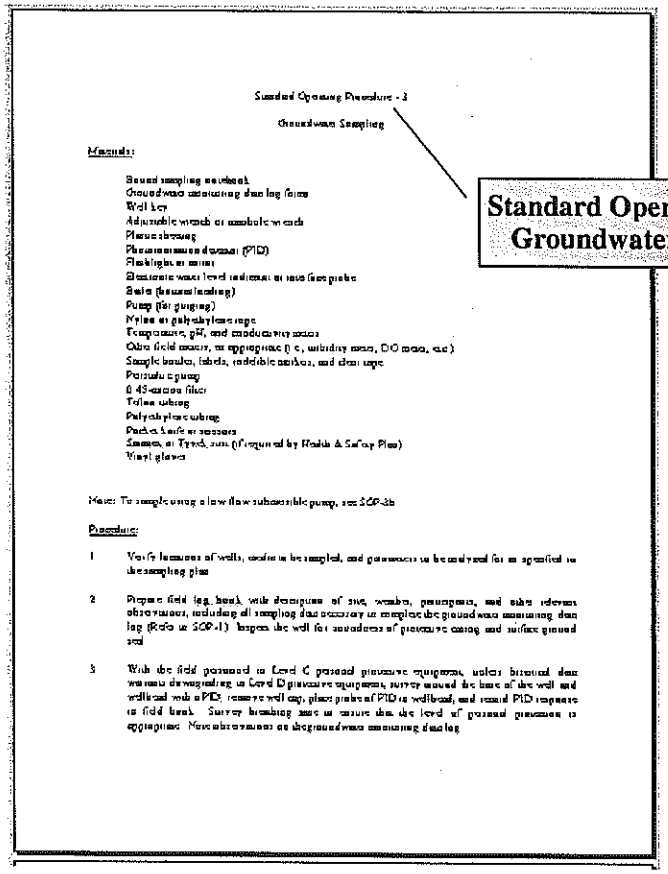
Schedule of Activities
OU-1



ESC researches material and equipment to ensure that the most reasonable product is incorporated into the design. Specifications are developed in sufficient detail to avoid having the contractors guess at what is required.

Since the remedial action is usually the most costly phase of cleaning up contaminated sites, stringent and effective scheduling, budget monitoring, and communication are the keys to success. A detailed work schedule and close monitoring of all tasks, especially those on the critical path, help ensure the project is completed on time (see example above). ESC monitors the task budgets to ensure it can adhere to the overall project cost. Most importantly, thorough and clear communication is necessary among all involved parties: the project managers, project technical

team, client and client's counsel, and regulatory oversight agency. This ensures each is satisfied with every step of the project and sign-off on completion becomes a formality.



Standard Operating Procedure - 3

Groundwater Sampling

Materials:

- Record sampling worksheet
- Groundwater monitoring data log forms
- Well key
- Adjustable wrench or combination wrench
- Plastic sheeting
- Photoionization detector (PID)
- Flashlight or similar
- Electronic water level indicator or interface probe
- Bailer (teflon or stainless)
- Pump (for purging)
- Nylon or polypropylene rope
- Thermometer, pH, and conductivity meters
- Other field meters, as appropriate (i.e., turbidity meter, DO meter, etc.)
- Sample bottles, labels, indelible markers, and clear tape
- Peristaltic pump
- 0.45-micron filter
- Teflon tubing
- Polyethylene tubing
- Packer, knife or scissors
- Steamer, or Tyvek suit, (if required by Health & Safety Plan)
- Vinyl gloves

Note: To sample using a low flow submersible pump, see SOP-3b

Procedure:

1. Verify locations of wells, media to be sampled, and parameters to be analyzed for as specified in the sampling plan
2. Prepare field log book with description of site, weather, personnel, and other relevant observations, including all sampling data necessary to complete the groundwater monitoring data log (Refer to SOP-4). Inspect the well for soundness of protective casing and surface ground seal
3. With the field personnel in Level C personal protective equipment, unless historical data warrants downgrading to Level D protective equipment, survey around the base of the well and wellhead with a PID; remove well cap, place probe of PID in wellhead, and record PID response in field book. Survey breathing zone to ensure that the level of personal protection is appropriate. Note odors/emissions on the groundwater monitoring data log

Standard Operating Procedure 3 Groundwater Sampling

Another element of ESC's approach to investigations and remediation is to ensure that the administrative and technical record is complete. ESC recognizes that the proper collection and analysis of environmental samples are a critical component for cost-effective site remediation. Thus, ESC has developed a Standard Operating Field Procedure manual that sets forth currently accepted protocols for sampling various media (e.g., groundwater, sediment, and soil), decontamination procedures, quality assurance/quality control measures, field documentation methods, and other important activities associated with data acquisition. In addition, all laboratory analyses are critically reviewed for quality assurance and quality control by ESC's in-house chemists.

ESC's staff has the experience necessary to address all aspects of environmental investigation, engineering, and remediation projects, both from a regulatory and technical standpoint.

Design Experience

ESC has chemical, civil, environmental, and mechanical engineers on staff, most of whom are licensed to practice in a number of states. ESC's approach to engineering centers on seeking the most effective solutions for our clients' problems or issues. Through the collective efforts of the company's engineers, geoscientists, risk assessors, and environmental scientists, ESC identifies and designs remediation programs that are appropriate, cost efficient, and effective. These systems have ranged from removal actions to groundwater and separate phase recovery systems, through overall facility compliance systems. ESC's engineering staff brings comprehensive regulatory,

ESC identifies and designs remediation programs that are appropriate, cost efficient, and effective.

site characterization, and engineering experience to each project whether a feasibility study or detailed design.

Recent design projects have ranged from a $6.4 million turnkey design-construct project in California to a $5,000 cap design for a site in Illinois. This California project involved the design, permitting, and implementation of a multi-faceted remediation and restoration program; including a slurry wall and dewatering system; the excavation of 52,000 tons of soil; low temperature thermal desorption of 38,000 tons of soil; and backfilling of the excavation. The design, permitting, and soil treatment for this project were completed in about one year and under budget. This project involved convincing regulators that the treatment system did not require an expensive RCRA Part B permit, which saved the client millions of dollars. Some of the projects that ESC's engineers have recently designed include a landfill closure in northern California, a groundwater collection and treatment system for a former electronic manufacturing facility in southern California, two bioremediation projects in New Jersey, a dual-phase vapor extraction system for a manufacturing facility in Wisconsin, and an *in-situ* treatment program for a site in Florida. Examples of current design projects include a landfill closure in New Jersey, dual-phase vapor extraction systems and groundwater treatment plants at sites in Ohio and Georgia, chemical oxidation projects in Florida and Georgia, and an innovative methanotrophic treatment technology to remove chlorinated solvents from groundwater in Georgia.

Design Experience

- Groundwater Remediation
- Soil Treatment/Management
- Water Treatment
- Air Treatment
- Containment/Barriers
- Augmentation of Natural Systems
- Landfill Closure
- Mine Closure/Reclamation

Risk Assessments and Health Evaluations

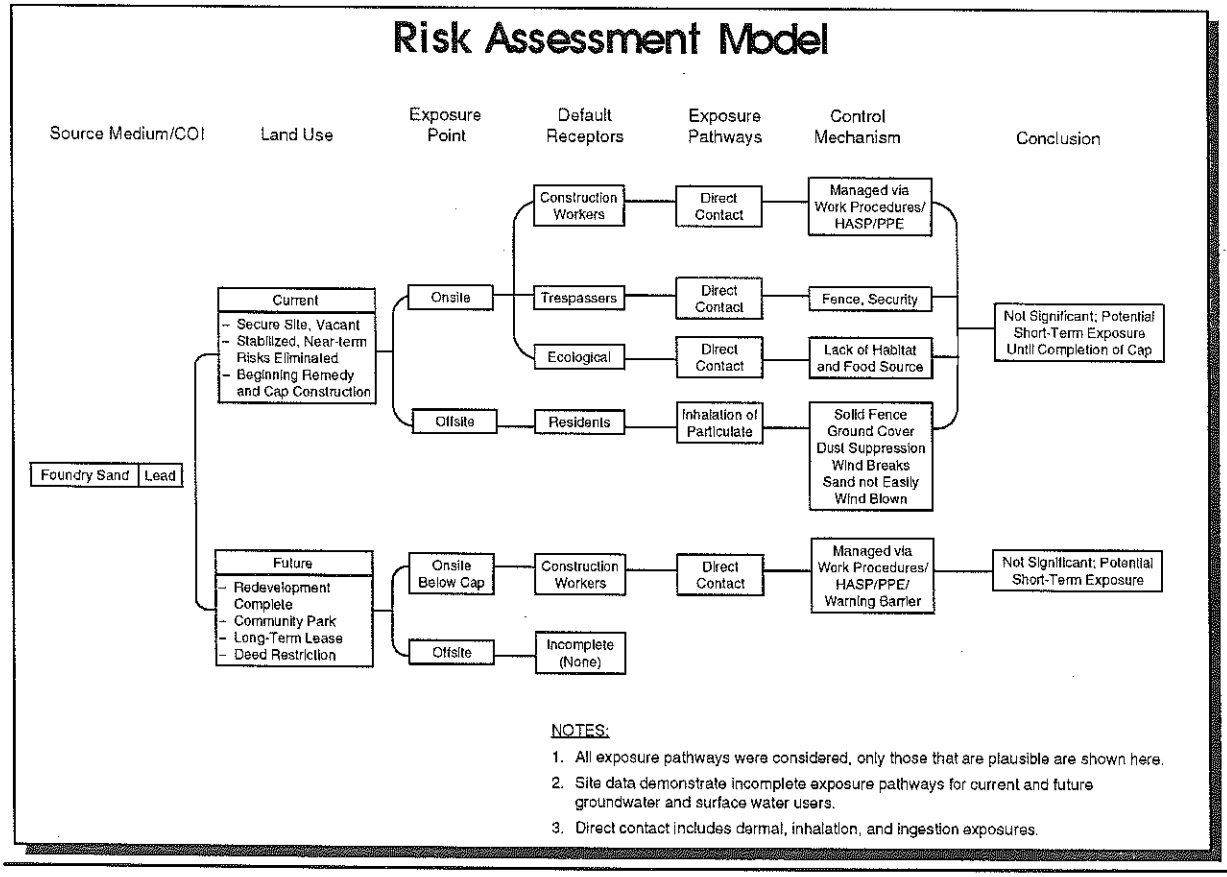
The risk assessments prepared by ESC serve to focus analysis on the site-related constituents of greatest concern and aid in the identification of cost-effective remedies. Until recently, the generic cleanup standards established by federal and state regulators were developed using a seemingly endless overlaying of safety factors along with the total avoidance of site-related mitigating factors. More recently, some local considerations have been incorporated, such as no longer demanding all sites be cleaned up to residential standards. Nevertheless, generic cleanup standards, by their very nature, must encompass all worst case scenarios. For more routine sites, they create cleanup overkill. Site-specific risk assessment permits the cleanup standards to be tailored to the site. These less stringent but equally protective cleanup levels can significantly cut remediation costs.

ESC's staff contains people trained in the variety of disciplines required to prepare technically defensible risk assessments.

ESC's staff contains employees trained in the variety of disciplines required to prepare technically defensible risk assessments. They provide expert technical advice on issues as varied as analytical chemistry; environmental sampling; toxicology; environmental, civil, and chemical engineering; hydrogeology; statistics; industrial hygiene; chemical fate and transport in the environment; regulatory compliance; and modeling of air emissions. ESC uses computerized on-line databases (e.g., National Library of Medicine, Dialog, Chemical Information System, and various Internet sources) to verify that critical risk assessment parameters are current and scientifically defensible. Risk assessors at ESC have critically evaluated the uncertainties inherent in data collection and analysis, selection of exposure parameters, and characterization of potential risks presented by multipathway exposures (see example below).

ESC recognizes that risk assessment is only one part of a larger effort and is an integral part of the strategic planning process.

ESC uses risk assessment to help determine the most appropriate remedy for a wide variety of sites, including private cleanups not subject to regulatory review as well as sites under state regulatory programs, RCRA corrective action, and Superfund. ESC thoroughly anticipates the regulator's concerns before the project is initiated. A constructive relationship with regulatory personnel allows our clients greater control of the risk assessment technical scope and cost.



ESC recognizes that risk assessment is only one part of a larger effort and is only one tool used to reach resolution at a site. As a result, ESC's risk assessments are not segregated from the remedial goals of the project, but rather are an integral part of the strategic planning process, discussed above. ESC uses risk assessment to ensure that the remediation technologies being selected provide the appropriate level of protection for human health and the environment.

ESC tries to forge an alliance and consensus among all the vested parties at a site.

ESC also recognizes that, to provide proper representation of our clients, we may have to challenge government policies and procedures. ESC toxicologists have extensive experience evaluating human and environmental risks and helped to develop risk assessment guidance that has been promulgated by regulatory agencies. Their experience provides the scientific background to challenge government policies that are inconsistent with good science.

Negotiation Support

Wherever possible, ESC tries to forge an alliance and consensus among all the affected parties at a site, whether they be the regulators, the opposite side in a merger or acquisition, or the local community. ESC does that by bringing practical and effective solutions to the table and being prepared to support those solutions. We ensure we are intimate with all applicable federal and state guidance and policy concerning every site.

Negotiated arrangements and settlements have avoided gold-plated solutions at our clients' expense.

As a result, ESC has negotiated favorable settlements for our clients by effectively partnering with the EPA and state agencies. Our straightforward approach has enabled us to establish constructive working relationships with personnel from the various regulatory agencies, which have granted permission to proceed with voluntary investigations and remedial actions at clients' sites with minimal oversight. Negotiated arrangements and settlements have favorably controlled ESC's clients' short- and long-term liabilities, avoiding gold-plated solutions at our clients' expense.

ESC forged an alliance with EPA Region 3 and conducted one of the first voluntary RCRA corrective action projects.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Law Enforcement
3800 Packard Road, Suite 160
Ann Arbor, Michigan 48108

IN REPLY REFER TO:
(FWS/LE)

January 19, 2000

To: Diane Sharrow
Environmental Scientist
US EPA Region 5
77 W. Jackson Blvd
Mail Code DRE-8J
Chicago, IL 60604

From: U.S. Fish and Wildlife Service
3800 Packard Road, Suite 160
Ann Arbor, MI 48108
(734) 971-9755

RE: Wildlife Rehabilitation Records for Rouge Steel

Dear Diane,

As follow-up to our visit to the Rouge Steel Company on 10/19/99, I contacted the City of Dearborn Animal Control officer to find out how many birds they retrieved from the Rouge Steel property in the last year.

The officer I spoke with, Joanie Krekaeu, said they didn't keep a record of their calls. She did specifically recall retrieving five (5) birds from Rouge Steel property during the summer of 1999. They were all Canada geese. Officer Krekaeu also stated that the summer of '99 was "not as bad as the summer of '98."

Officer Krekaeu referred me to wildlife rehabilitator Betty King, who received most of the birds retrieved from Rouge Steel. When I contacted Ms. King, she also recalled receiving approximately five (5) birds, Canada geese, from Rouge Steel property. At this time, she cannot locate her records regarding these birds, so exact numbers and their status are unknown. I have asked her to continue looking for these records and contact me if she locates them.

Also enclosed are the photographs taken of the facility on 10/19/99. As you recall, one oiled bird wing was found on the property, underneath the belt skimmer on the western edge of the lagoon. This specimen is currently at our lab in Ashland, Oregon. The lab report is not yet available. Additionally, Mr. Potvin and Mr. Gurly, both Rouge Steel employees who were contacted at the site, reported instances of migratory birds landing on the ponds and becoming trapped or soaked in oil.

Additionally, Mr. Potvin told us that the "Sludge Lagoon," which was dry on the day of our visit, attracts ducks and herons when it fills with water. During our visit to the site, we also saw a hairy woodpecker, cardinals, mourning doves and other songbirds in the vegetated area surrounding the ponds. Mr. Potvin also told us of a red fox he recently saw inside the fenced-off water treatment ponds.

As soon as the lab report or any rehabilitation records become available, I will forward them to you.

Sincerely,

SA Sheila O'Connor #541

Sheila O'Connor, #541
Special Agent
US Fish and Wildlife Service

ATTACHMENT 3

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ATTACHMENT 3
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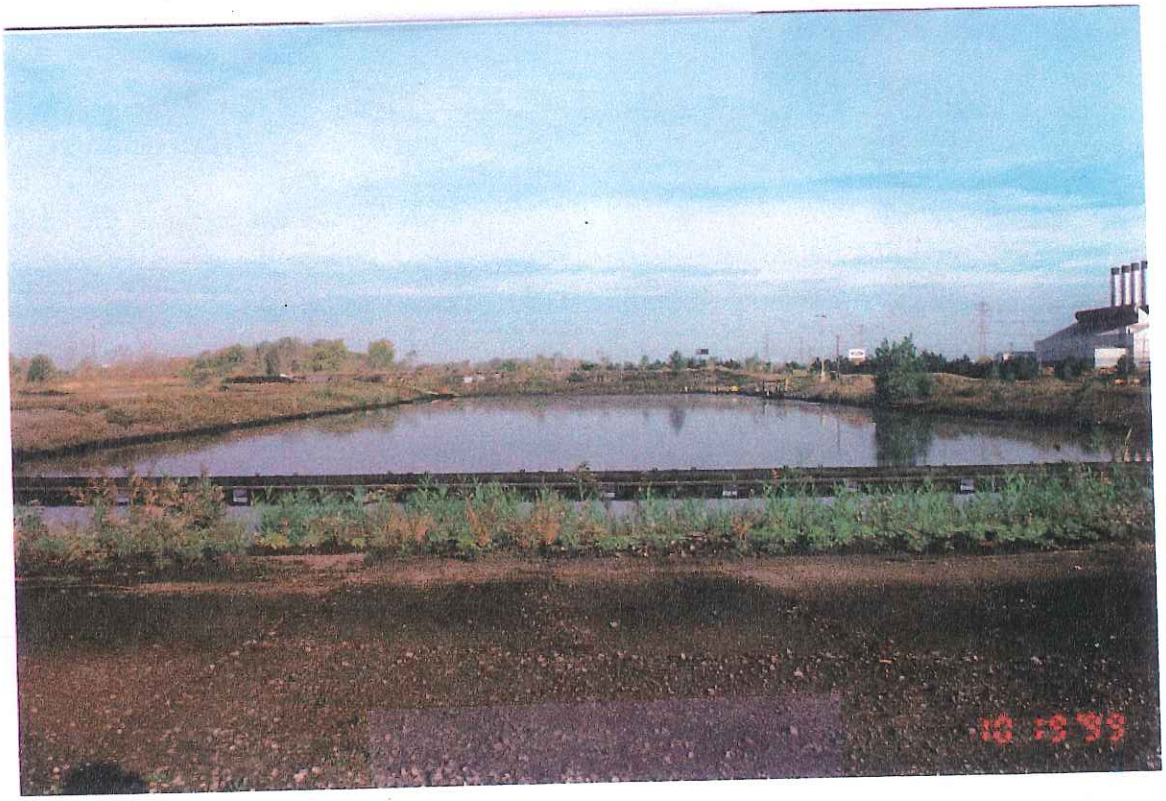
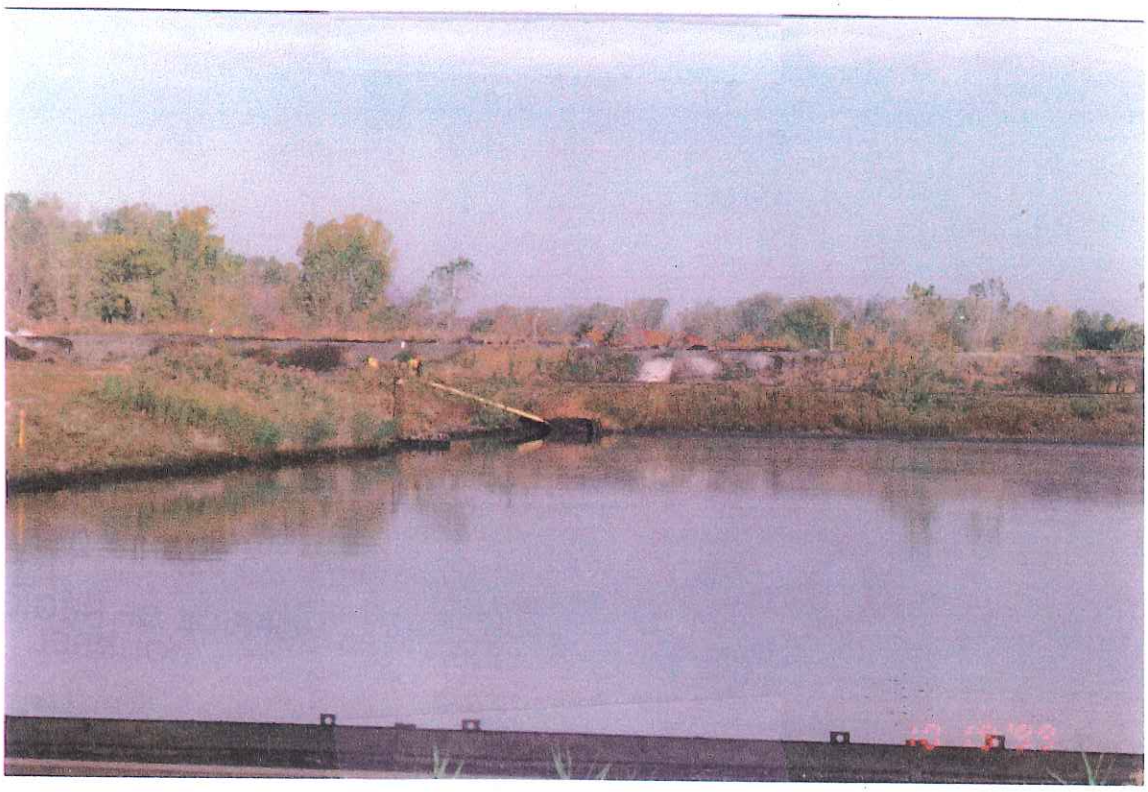


ATTACHMENT 3
PAGE 3 OF 4



ATTACHMENT 3

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ROUGE STEEL INSPECTION REPORT
DRAFT & ENFORCEMENT CONFIDENTIAL

FACILITY NAME:	Rouge Steel Company
USEPA ID NO:	MID 087 738 431
FACILITY ADDRESS:	3001 Miller Rd., Dearborn, MI 48121
FACILITY TYPE:	Large Quantity Generator
FACILITY REPRESENTATIVE:	Donald S. Windeler, P.E., Manager - Environmental Engineering Department Lowell T. Potvin, Environmental Engineer, Environmental Engineering Department
USEPA INSPECTOR:	Diane Sharrow
USF&WS SPECIAL AGENTS:	Sheila O'Connor James Gale
DATE OF INSPECTION:	October 20, 1999

The inspection was conducted to assist in determining whether birds and wildlife were being killed or adversely affected by solid waste generated by Rouge Steel Company and managed in the oil polishing lagoons and sludge lagoons (See Attachment A - January 15. 1997, Map entitled Power Facility Locations).

Special Agents O'Connor and Gale, and Inspector Sharrow, arrived at Gate 3 of the site at approximately 7:30 am and were directed to the Visitor's Parking Lot. After presenting our credentials to security, we were put in contact with Mr. Windeler. We met with Mr. Windeler at approximately 7:45 am and explained the purpose of the inspection. He was upset by the unannounced nature of our inspection because it conflicted with a U.S. EPA EPCRA inspection scheduled for that day. He asked us to return on another day. We insisted on seeing the lagoons that day. After additional discussion with Mr. Windeler, he rearranged his schedule and took us out in a Company van to the oil polishing lagoons west of Schaeffer Road and south of Butler Road.

Special Agents O'Connor and Dale proceeded to walk the perimeter of the oil polishing lagoons. The two lagoons consist of the oil polishing lagoon and the supplemental oil polishing lagoons. There are also two oil skim clarifiers and a sludge lagoon at the site. The two lagoons had steep embankments with some rip rap. The embankments were stained with oil. Oil was present on the surface of both lagoons. Several booms were also present that were in fair condition. Buffalo Grass, Cattail, daisies, thistle, goldenrod, queen Anne's Lace and other vegetation were present on

the banks of both lagoon. A belt skimmer was in place on the oil polishing lagoon.
Pat Gurly, a Rouge Steel maintenance/waste water treatment employee, was present at the "silo" were the oil recovered by the belt skimmer is recovered and pumped out. He said goose and heron have been found oiled at the ponds and were recovered and sent to the City of Dearborn for rehabilitation. He thought that there had also been oiled bird remains recovered when the silo was pumped out. He thought that Tom Barstow, one of the waste water treatment operators (?) Might know more specifics on where birds had been sent.

I proceeded to ask Mr. Windeler about Mr. Barstow's comments, the lagoons and Rouge Steel Company's operations. He stated he had been at Rouge Steel for approximately three years and he had no direct complaints regarding oiled wildlife. He said that the water flowed from the oil skim clarifiers to the oil polishing lagoon and then to the supplemental oil polishing lagoon. Water was observed to be flowing north. About this time, Special Agent Gale located an oiled wing near the base of the silo. Some feathers were also recovered immediately north of the silo. These bird remains were bagged and tagged as evidence by the USF&WS.

Mr. Lowell Potvin then arrived at the site. Mr. Windeler stated that Mr. Potvin would accompany us on the remainder of our inspection, so he could go to the EPCRA inspection. Mr. Potvin stated he had been a water quality engineer for 25 years, the last 10 with Rouge Steel concentrating on environmental engineering. I asked him about Mr. Gurly's comments. He said that the most recent bird mortality he was aware of, was that an egret had been found oiled in the sludge. HE also stated that an occasional goose had nested in the area. He provided the phone number 943-2077 for the animal shelter/wildlife recovery center where the egret was sent.

Mr. Potvin also told me that the Rouge River had been rerouted a number of years ago. The River formerly flowed along the lines of the Supplemental Oil Polishing Lagoon which accounted for its "shape". He also said that when the oil polishing lagoon was constructed, the gravelly banks attracted kildeer and hosted a rookery of arctic terns for several summers.

We continued our discussions as we followed Special Agents O'Connor and Dale around the banks of the Supplemental Oil Polishing Lagoon. The Supplemental Oil Polishing Lagoon had little or no flow. Mr. Potvin stated that the skimmers were not very effective in the Supplemental Oil Polishing Lagoon because

of the low levels of oil and lack of flow. He stated that oil is vacuumed directly off this Lagoon as necessary. There is a lift pump that can be used to pump water to the clarifiers.

Mr. Potvin speculated that both Lagoons were 6 to 10 feet in depth. He also said that Rouge Steel had changed to a non-emulsified oil to aid recovery. Mr. Potvin also told me that when the power house exploded at the Rouge complex, the previous spring, oil had been discharged directly to the ponds. He also said that the last time the lagoons had been dredged, the sludge was placed in the Sludge Lagoon. About this time we all drove over to the Oil skimmers. Mr. Potvin said that they had aerated the two smaller sludge ponds adjacent to the skimmers for odor control due to complaints from area residents. The sludge ponds overflow back to the clarifiers. The smaller sludge ponds are pumped down one at a time, mixed with lime and dredged. We then exited Rouge Steel's property through a gate in the fence and walked along the channelized cement embankments looking for evidence of injured birds and wildlife. Numerous small birds were seen in the trees and heavy vegetation along the River. We then drove to the Sludge Lagoon. It is almost unseen due to the trees and vegetation that surround the Lagoon. A large number of small birds were observed in this area. The Sludge Lagoon contained contained little or no water. Mr. Potvin thought it was due to the limited precipitation during the past few month s and low levels of water in the Great Lakes and the surrounding area.

We then drove along the River Front Rod to the Oil Polishing Lagoon or Pond 12 A east of the Electric Furnace. Mr. Potvin explained that the Lagoon contained only non-contact cooling water. The Lagoon contained a small amount of stagnant water. Limited vegetation existed between the perimeter of the road and the Lagoon and the River. No wildlife or oil was observed in the area.

Mr. Potvin also drove us offsite to a pond owned by the Darling Company that is across the river from the oil polishing lagoons. A mallard hen and several drakes were present on the pond. No oil was seen.

We then returned to Mr. Windeler's Office. Special Agents O'Connor and Dale, and I conferred privately for a few minutes. We then spoke briefly with Mr. Potvin. W told him that he would receive copies of all the photographs taken by Special Agent O'Connor, and that both agencies would contact Rouge Steel Company in the future about what might need to be done at the Lagoons. We departed at approximately 11:15 am.

Since the inspection, special Agent O'Connor has contacted the telephone number provided by Rouge Steel where birds have purportedly been sent for recovery. According to a voice mail message from Ms. O'Connor, the "center" is not run by the City of Dearborn. I am waiting on more information from Ms. O'Connor regarding how many birds may have been sent by Rouge Steel to this "rehabilitator", as well as copies of the photographs and any analysis completed on the bird remains.

Conclusion. It is the USEPA inspector's professional opinion that an ecological risk assessment would clearly indicate that the oil polishing lagoons at Rouge Steel do present both a acute and chronic risk to birds, and thus an imminent and substantial endangerment.

This conclusion is supported by information found on the USEPA Intranet Website on Imminent and Substantial Endangerment Authorities that at least one RCRA 7003 Order has been issued based on similar risks, not excluding drowning, toxicosis and hypothermia, even though no birds were recovered or found. Keep in mind that dead or dying oiled birds have been estimated by USFWS to sink or dissolve in approximately four days.

Whether these risks are addressed under a RCRA 7003 Order or a possible Supplemental Enforcement Project as part of the ongoing multi-media judicial action being taken by USEPA Region 5, needs to be discussed with Regional Counsel. A determination on what action should be taken, needs to be made as soon as possible, if any USEPA wants Rouge Steel to take deterrent actions before the spring where the greatest number of migrating and breeding birds could be adversely affected. Based on the size and configuration of the lagoons, a number of different deterrent techniques could be employed by Rouge Steel to address these risks.

NOTE: This report is draft, interim and Preliminary. It may be incomplete. It may contain unreviewed materials, concepts and conclusions. It may not contain reference to all relevant information or potential violations identified, suspected or under investigation. Follow-up information and analysis may be required. It may or may not reflect the final conclusions or positions of the USEPA. Never the less, the information contained herein, is confidential and enforcement sensitive, and may be privileged and should not be release in any way without careful consideration and consultation with the USEPA staff and counsel. This draft should not be copies or distributed, and should be destroyed when the final inspection report is produced.

Attachments

cc: O'Connor
Dale

cc: Vasaturo
Maloney
Valentino
Little
Jereza
Sharrow
File